THE

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SPIRIT OF THE AGRICULTURAL JOURNALS OF THE DAY.

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WORK FOR MAY.

In a country like ours of immense distances, reaching from the Atlantic to where else God only can tell—embracing latitudes and climates as variable as space can make them—and comprising an agricultural people pursuing all the systems of farming and planting known to the husbandry of the world—it may be difficult to say what particular thing is to be done on the farm this month, in each district of country, therefore, we shall only tell of that which *may* be safely done any where within the range of our wide spread circulation.

With this brief introduction we ask attention to the labors

ON THE FARM.

Corn.—Those who may not have gotten in their corn, should lose no time in putting it in at the earliest possible period. To such as may not have been so fortunate as to have provided manure enough to give a broadcast dressing to their corn lands, we would enjoin the duty upon them of manuring in the hill, though nothing but the direst necessity can justify any farmer in resorting to such practice as his exclusive means of fertilizing his corn ground. For the means of manuring, preparation of the soil, mode of culture, &c., we refer to our last month's number, wherein will be found every desirable kind of information connected with the subject of corn-growing and the making of manure and composts. With this reference, we shall content ourself by simply saying, that he who desires to make a good crop, *must* keep his field clear of every thing but the corn plants, and must give *them* food, and plenty of it.

Millet.—This crop may be put in any time between the 15th of May and 15th of June. The soil should be a *fertile loam*, the ground should be thoroughly and deeply ploughed, and harrowed until every clod is broken. The ground being in a state of fine tilth, sow half a bushel of seed to the acre, harrow it in lightly, and complete the work by passing a heavy roller over the ground, taking care to *lap* as you go along, in order that the earth may be brought into immediate contact with the seed, and thus bring on early germination. We have stated that it should be sown in a *fertile loam*—it is in such soils that it most delights to vegetate, grow, and ripen its golden heads. But it is but candid to say, that, to ensure a good crop, any land on which it may be grown *must* be rich, and that to ensure a luxuriant crop of hay and grain, it will be necessary to give the soil a liberal dressing of nutritive manure. This will not be thought strange of, when the farmer comes to think that the crop will mature in from 6 to 8 weeks from the time of seeding, because, he knows that any thing so rapid in its growth, requires heavy feeding to ensure a large product. Where hay alone is wanted, we would sow 3 pecks of seed, as in that case the hay would be finer—Where grain and hay too, may be desirable, half a bushel of seed will be an ample allowance for an acre.

If the ground be rich, well manured, well ploughed, and thoroughly pulverized, four tons of hay, and 20 bushels of grain may be raised on an acre. We say this advisedly. The hay is fully as good as clover hay, while the seed makes when chopt or ground and mixed with cut hay or straw, an excellent food for horses and all other kinds of stock—while unground, it is excellent for poultry.

Oats.—As we trust this crop will have been not only got in, but up, before this number reaches its destination, we will content ourselves by expressing the hope, that, in every instance where they may have been sown on poor lands, the planter or the farmer will top-dress each acre with a compost comprised of 1 bushel of plaster, 1 of salt and 2 of ashes. With such a dressing, if early applied, he may calculate upon an increase of 25 per cent. in the product of his land. To such as may have lime at command, a bushel or two added to the mixture would add to its value.

Fall Potatoes.—The earlier after the 10th of this month potatoes may be put in the better, and the

greater will be the certainty of their escaping the rot. In preparing the ground, let your work be thorough. Let one-half the manure you may allot for your crop be spread broad-cast and ploughed in, the rest apply in the rows, either *upon* or *under* the potato sets, it does not matter which.

Cut your potatoes two weeks before planting them, and as you cut, dry them in ashes, lime, or plaster, or a mixture of equal parts of each. In cutting the sets, preserve *two eyes* to each, and when dried, as above directed, spread them out thinly on your barn floor, or on some other dry cool place where they will not be exposed to too much light and heat.

As you plough your ground, be sure to harrow and roll until the soil is in fine tilth. Then run furrows 3 feet apart, North and South, 4 inches deep, plant your sets 10 inches apart, strew over them your manure, and over that, a mixture of equal parts of lime, ashes, and plaster, and then cover.

When the plants first begin to show their heads, run the harrow over the rows, this breaks up the indurated surface, lets the air into the plants, and ensures regularity in their coming up; besides which, it destroys many weeds, and, in fact acts as a working to the potato plants.

When the vines are 3 inches high, turn a furrow from and return it again to them, taking care to remove all weeds and grass with the hoe or hand. Any hill which you may give, should present a flat surface. At this working, strew a bushel of salt to the acre over the vines. At intervals of two weeks work twice or thrice more, and you may lay them by; but be sure, whenever necessary, to relieve the vines from all weeds and grass, by means of the hoe and hand. Such intruders should never be permitted to divide the riches of earth, sun and air with the potato, or any other plant, where it can be prevented.

Mangel Wurzel--Sugar Beet—Parsnips—Carrots.—If you have not got a few acres of these fine roots in yet, do take the courage to put in an acre or half an acre of each. Try it once and she who makes your home the scene of bliss and joy, after one winter's experience in feeding her milch cows with them, will see that you never omit their culture again. It is your interest to put them in, patriotism and private ambition appeals to you to do so, then yield at once and set an example worth half a million of dollars to your county if generally followed. Get in your seed as early as possible—under no circumstances delay doing so beyond the 10th of the month. For directions for their culture, see our last month's number.

Sweet potatoes.—Plant these the first week in this month. Though you may not be prepared to put in a crop for market, be sure to have a patch for the use of your family. There is something so luscious in a well cooked sweet potato—something which so fixes upon the taste of all palates, that no father should neglect their culture, as he should delight in gratifying those around him whose care he has received from Providence as a sacred trust.

Pumpkins.—Get in your pumpkins the first week in this month.

Lucerne.—You may still sow seeds of this grass up to the 15th of the month. The ground should be ploughed twice at least. See directions for its culture in last month's number.

Melons, of all kinds, should be put in without the least delay.

Field Peas.—Get these in by the 10th of the month.

Field Beans should be planted as speedily as possible. When the *fleece* is the object, every sheep farmer should raise plenty of beans.

Fruit Trees.—Make a solution of potash of 2 lbs of potash and 10 gallons of water. Then take a brush and brush the bodies of your fruit trees with this mixture. In two weeks afterwards paint them with a mixture comprised thus—To each gallon of Soft Soap add 1 lb. flour of sulphur and 1 qt. salt—mix the whole well together and paint the bodies of each tree from the ground up as far as you can reach. This done whiten the soil underneath the limbs of the tree with a compost made of 7 parts lime and 1 part salt. If the trees are *young* the potash solution should only have half the strength—that is, but 1 lb. potash to 10 gallons of water.

If your orchard has not very recently been manured, a bushel of compost comprised of lime, ashes, bone-dust, mould, &c., should be placed around each tree and carefully dug in. For fuller views on this subject see our remarks under the head of "*Manure for Fruit Trees.*"

Out-houses.—If you have not already done so, give to your barn, *stables, corn-house, granary, Cow-house, poultry houses, quarters,* and all other out-buildings, as well as *garden, yard,* and *lane fences,* a thorough white washing. In so doing you will promote health, and add to the beauty of your establishment. While the brush may be in hand, don't forget your cellar walls, taking care to strew freshly slacked lime over its floor.

Implements and Tools.—If you did not attend to these last month, go at once and thoroughly examine every one *yourself,* and have those that need it repaired without delay. If there be any that are unfit for further use, replace them with new ones at once. The farmer who attempts to cultivate his lands with insufficient implements and tools, consults any thing else than his true interest.

Draining Marshes, Morasses, and wet lands, generally.—Upon this subject, for this month, we turn our readers over to the excellent *essay* of that substantial, strong minded, patriotic Delaware Farmer, Mr *John Jones,* which will be found in our present number. It tells a true tale in the right way—tells the *why* and the *wherefore* that lands should be drained and the *how* it may be done—that's the right kind of talk for farmers—and we hope they will be prompt to improve upon the facts therein presented for their consideration. *Marshes generate disease—wet arable lands produce scantily, and of inferior quality, and, therefore, such lands should be thoroughly drained.*

Materials for Manure.—Get to work and collect materials for forming compost heaps. Let the accumulation of manure be the chief busines of your

farm—set apart one man and a horse and cart for the purpose, and see that he does his duty faithfully. If we were asked where the materials are to be found, we would say every where—in the marsh, at the heads of rivers and creeks, along the head lands, in the ditches and drains, in the woods, in the fence corners, along the fence sides, in the yards and lanes and along the roads, in the marl pits and in the shell banks—the weeds and grass which grow in the salt and fresh water or in the fields—the sea weeds which line our shores, and peat,—in a word, that all things susceptible of decomposition, or possessing a calcareous principle, are the rich elements of manure, and that all such materials should be carefully collected and composted together.

Beasts of Labor.—Let these animals, whose strength is now put into such incessant requisition, receive attention commensurate with their sevices; manifest, by your increased care, that though they be brute beasts, are denied the power of speech, and cannot give tongue to their wants or let their sufferings be known, that you are alive both to the one and the other; that you appreciate their toils, and are willing to prove by your kindness that you are not insensible to the strong claims they have to it. Make it a duty to *see* that they *receive* daily, full allowances of wholesome food, that they get their meals at regular hours, have water as often given them, are provided with well littered beds and good hay at night, get allowances of Salt thrice a week, and are *curried* or combed and rubbed down every morning and night. Having mentioned *salt*, we will here remark, that a mixture of *salt*, *hickory ashes*, and *lime*, in equal portions, would be cheaper, and answer a better purpose than salt alone. Whether they receive salt, or the mixture, they should get about 2 oz. each day; when given to them to be divided so that with each meal they would receive a third of it. By chopping the grain fed to them and mixing it with cut hay or straw they would derive much more benefit than if the grain were fed whole, while, indeed, less would answer.

Milch Cows.—These should be fed with rich slops until the pastures become good. Bran or meal and roots mixed with cut fodder, dashed with a little salt forms a grateful mess and encourages the secretion of milk. Grain slops fed to cows are always paid back with compound interest. No farmer ever yet lost any thing by being humane and provident towards his stock, whether intended for labor, the shambles or the dairy.

Stock of all kinds.—Let these be cared for in a spirit of humanity—see that the young among them are not neglected. Sheep at this season require particular attention and should receive fair allowances of salt, and get a gill of meal daily of some kind until they go out to permanent pasture.

Fences.—If you have not availed yourself of our former advice, go at once and have your fences put into the most thorough state of repair—provide *gates* for every field on your place, and thus set an example to your neighbors that will stir them up to action.

Liming.—If your lands are not already limed, be sure to begin your arrangements to commence that necessary part of every farmer's duty. If you cannot spare the means to lime a large field *entire*, strain a point, and buy as much lime as will do a part of it—the ice once broken—a beginning once made in the purchase of the article, no matter how few hundred bushels if they are applied, the liming of the residue of your farm will prove an easy business.

Curing of Clover.—As you will have cut your clover before we shall have had another opportunity of addressing you, let us advise you *to cut it when it first comes into bloom;* after letting it remain a few hours in swarth, put it into *cocks* and complete your curing in that way.

In taking our monthly leave, we salute you with our best wishes for your health and happiness.

ANALYSES OF INDIAN CORN—

THE PROPER MANURE FOR.

The following analyses of Indian Corn are by professors *Letellier* of France, and *Shepard* of South Carolina. The ashes of the grain, when submitted to the tests, showed the following results:

	By Professor Letellier.	*By Professor Shepard.*
Potash and Soda,	30.8	19.51
Lime and Magnesia,	18.3	
Phosphoric acid,	50.1	
Silica,	8	38 45
Phosphate of Lime,		17.17
" of Magnesia,		13 83
" of Potassa,		2.24
Carbonate of Magnesia,		2.16
Carbonate of Lime,		2.50
Sulphate of Magnesia, Sulphate of Lime,		79
Silica, mechanically present		1.70
Alumina, traces		
Loss,		1.65
	100.0	100.00

From the above analyses it will appear very evident that *Lime*, *Ashes*, or *Potash*, *Bone-dust*, *Magnesia*, and *Plaster* are essential to all soils in which corn may be grown. Where there may be difficulty in obtaining a supply of bones to furnish the phosphate of lime, oyster-shell lime will answer as a very good substitute, as it contains that substance.

The discrepancies between these two analyses are very great, and it is difficult to account for them.—While professor *Letellier* makes the Silica only 0.8 per cent., professor *Shepard* found in his 40.15 per cent a difference of 40.7 per cent.; professor *Letellier* gives of Potash and Soda, 30.8, while professor *Shepard*, found of Potassa 19.51 and of the *Sulphate* of *Potassa* 2.24, making, without taking the sulphuric acid into the account, 21.75, a difference of 8.33 per cent.; again, professor *Letellier* gives in his corn, 50.1 of *Phosphoric acid*, while professor *Shepard* in his found only 17.17 per cent. of the Phosphate of lime; now if we take the relative proportion of *phosphoric acid* in that quantity of the phosphate of lime, we have but about 12.17 per cent., a difference of 37.24 per cent.

Such differences in the results of the analyses of these gentlemen are truly astounding. Something we know, should be allowed for the difference in the constituent elements of the respective soils on which the corn grew; but let that difference be ever so great, we think the two analyses could not have been so dissimilar, as it is hardly possible, that there is any soil in culture, which could possibly yield so large a supply of *phosphoric acid*. So far as our reading enables us to speak, there are but few for-

mations of rocks known to science, which yields more than a small per cent. of the phosphate of lime, and as soils are made up of the disintegration of rocks, it does not seem reasonable, that the soil on which professor *Letellier's* corn grew, could, by any chemical action, have given out to the demands of the plant, even if it needed it, so disproportionate a per centum as the one set down by him. Had *his* corn been grown in *bone earth*, exclusively, it could not have imbibed more phosphoric acid than the bones contained, which the best authorities set down at about 24 per cent. Where then, we ask, did the supply come from, to make up the excessive quantity which he found? We ask the question, though we confess we entertain no hope of its being answered, and for the all-sufficient reason, that we do not believe that the analyst pushed his qualitative researches far enough, either to do justice to himself, or satisfy the public as to his accuracy.

Notwithstanding the discrepancies between these two learned gentlemen, the prescription we have given as to the proper mineral manures for corn not only holds good, but the analysis of professor *Shepard* goes to sustain the correctness of our having added *plaster* to the minerals whose presence is indicated by the analysis of professor *Letellier*,—for although he did not find sulphuric acid, professor Shepard found it in *his*, in two forms, viz: as Sulphate of Lime,—plaster—and as Sulphate of Magnesia. So that here, practice and theory arrive at the same results—the practice and observation of farmers having long since established the efficacy of *plaster* as a manure for corn,—while the analysis of professor *Shepard* establishes the fact of its presence in the grain; thus proving it to be an essential element in its constitution, independent of the important office which it performs, through one of its constituents—Sulphuric acid—of attracting, condensing, and holding in reserve for the use of the plant, the nitrogen of the atmosphere.

But there is another light in which we view the analysis of professor Shepard, that goes far to strengthen an opinion which we have long entertained. It is this,—we have never been satisfied, that the current opinion entertained of the injurious effects of Magnesian lime to land, was founded in any thing more substantial than a groundless prejudice, because, we were aware that it formed one of the constituent elements of all the *Graminaceæ*—that it was found in Rice, Cotton, Sweet Potatoes, Wheat, Oats, Beans, &c., and, in our common sense way, we reasoned, that, as it comprised a portion of the substance of so many of the vegetable family, it could not be the great bug-bear it was represented to be. In corn, it will be seen that it is present in three forms, viz: to the extent of 13.83 per cent. as phosphate, 2.16 per cent. as a carbonate, and as a sulphate—thus demonstrating, by its presence, how essential it is in vegetable economy. The objection urged against Magnesian lime, is, that it absorbs carbonic acid much *slower* than other limes, and therefore remains caustic much longer; and that, by its causticity, it exerts an exhausting influence upon the land. It may *not* have as *great* an affinity for carbonic acid as have limes wherein magnesia is not present, but still it *has an affinity* for it, and will, in the process of time, drink in its supply, and become a mild carbonate, in which state, its *pernicious* powers, if it possess any, will have ceased; for the carbonate of magnesia is equally as innoxious as the carbonate of lime. But this opinion of our's is not *mere* opinion, as much of the lime used in Pennsylvania for Agricultural purposes, is magnesian lime. If, however, the protracted period of its causticity did render it injurious to vegetation, the evil effect might be obviated, by using *less* of such lime to the acre, so that, out of evil good would come, in the shape of a lessened expenditure,—but we are reluctant to form any such belief, and have the candor so to express ourself. This expression of our opinion may subject us to the criticism of those who entertain different views,—if it should, be it so,—we shall be content, as we shall find consolation in the consciousness of having discharged our duty.

VEGETABLE PHYSIOLOGY.

To the Editor of the American Farmer.

Sir:—It requires but little experience to foretell that a blind attachment for either the mineral or vegeto-animal school of Husbandry will ultimately suffer the defeat which has ever attended exclusive or extreme doctrines. The Eclectic mode of treatment, when circumstances admit its application, will at last be found most appropriate in Agriculture as in Medicine; the merit of being a natural, in contradistinction to an artificial system not entitling either to our unbounded confidence as the beau ideal.

We may well be astonished how the plodding tiller of the earth in the last century could have underrated the importance of that portion of vegetables which remains after incineration: how the more pretending Philosopher could have regarded as accidental what was their uniform accompaniment. It should teach us that Science may be at fault; that she may be blinded by too much light. All intelligent men are now agreed that most of the mineral elements entering into the constitution of plants are indispensably necessary to give them their peculiar properties in unqualified perfection; and it would appear that if the soil be supplied with those elements which cannot be sensibly abstracted from the atmosphere, in the proportions indicated by an analysis of vegetable tissues and products, we not only realize an approximation to a speculative truth, but ensure the most favorable conditions for a complete triumph in fact. Still in defiance of authority and the formulas of Chemists many a practical farmer will continue to place his sole reliance preferably on home made manures, when the price of foreign articles would not deter him from purchasing them: the immigrant will instinctively squat on well-wooded bottoms or on uplands with deep black mould and green sward, as all-sufficient for the support of his family: the market gardener with the mineral appliances at command, and vacant lots of bare and bar-

ren aspect offered him at a nominal valuation, will select the swamp or peat-bog, well knowing that by drainage and the addition of a little lime or ashes, truck will luxuriate to his heart's content, as if quickened by magic influence. From their acts we infer that they all base their hopes and fears on the organic elements, oxygen, hydrogen, carbon and nitrogen, not as exclusively sufficient, but the most conducive to heavy crops. The order in which they stand would probably denote their intrinsic worth. Now I respectfully submit the question to my brethren in the ministry but not in the faith, whether these are not the very elements which leave a plant almost as fast as they enter it in youth, quite as fast at maturity, and faster in its decline. Can this circumstance (which I shall for argument's sake presume to be a fact) give us a clue to discover the alleged superiority of nitrogen in promoting growth? Taking this as a fresh point of departure, let us see to what unexplored region it will lead us. If I may judge from the general tenor of your own reflections, Mr. Editor, on the theory and practice of our profession, there is a fellow-feeling between us, a spirit of independent inquiry: and I therefore do not hesitate to commit this as I have other kindred physiological problems to your candid consideration. I am not ashamed of falling into occasional errors, or of being convicted of rash conclusions, in an honest search after truth.

In the first place it seems to me fallacious to explain the operation of manures, or to rate their sufficiency by simply calculating their elements in reference to the amount of the respective constituents of different crops; because the estimate can only be made by assuming that all the organic and inorganic materials entering a plant become fixed as tissue or other product, which is totally at variance, I think, with the facts in the case, the only portion answering to the rule being the hard-wood which represents the skeleton of vegetables; and I am disposed to believe that eremacausis may occur in even this texture for functional purposes, more especially in old age. In rough practice composts mixed on this principle, or with reference to mineral ingredients, might satisfy our most sanguine expectations, and yet in mathematical exactitude they would fail, if my premises be correct. A more complete method would consist in accumulating the debris of identical plants, in which all the elements still exist but in an altered condition, and which themselves absorb from the atmosphere, under favorable circumstances, water and ammonia. Seed when good presents the only reliable proportions, such at least as are adapted for germinal growth, oxygen and hydrogen excepted: and it is for this reason, I suppose, that *guano* and other active stimulants in immediate contact may prove injurious until the rootlets and shoots have acquired the faculty of abstracting aliment from other quarters than the parent grain.—Differential or comparative analyses enable us to ascertain what elements are nutritive, not the proportions entering or leaving the system in a given time, much less their uses in the economy. Could the knowledge of how much carbon is contained in the tissues or the blood of animals by a post mortem examination give any insight into the office said to be performed by a part of the carbon in preserving the temperature? As regards both races we must determine the increase and decrease of size, alterations in weight, fluctuations in temperature, exhibitions of force, if any, together with the relative amount of the ingesta and egesta, before we can systematize different kinds of food. The intercellular spaces of both kingdoms would seem to be affected by endosmosic and exosmosic diffusion of fluids only to a limited extent in healthy individuals. Absorption being a mechanical process is governed by physical laws, but the selection of what shall satisfy a loss of equilibrium within the walls of the primitive cell is a vital prerogative.

Nitrogen, I conceive, is not strictly a nutritive element, that is, it does not enter into the composition of lignin or cellulose, and consequently does not affect materially the tree proper. Let me be distinctly understood in advancing this bold proposition.—We cannot of course recognize a plant as perfect except in possession of all its parts; but the Physiologist makes a distinction between essentials and non-essentials in his broad classifications. The idea of an animal does not necessarily comprehend nervous matter within its scope, because there are some animals without it. The azotized substances then in vegetables I propose to regard as secretions, like fat in the animal, since they do not form a part of the plant abstractedly considered. Starch and gum are both tonic and nutritive, but some doubts may be entertained respecting the carbon of gluten, &c., whether it is ever used except for precipitating ligneous fibre at the expense of its own integrity and vital properties, in other words, for endowing the said fibre with more exalted attributes. By means of light in the first instance acting on the affinities of certain compounds of low degree (ammonia, carbonic acid, water, and a few others) a higher condition is attained by them unitedly, and the resultants are themselves liable to be again reduced to simpler combinations with the evolution of a force which is never lost as long as other materials are available for receiving and propagating its influence, so that the actual formation of complex substances in the leaf must be referred to external and internal causes combined: it is a creative effort which the admission of identical or analogous principles by the roots to some extent relieves; and to which seeds are fortunately not subject, as in most cases they are withdrawn from broad day-light. This expenditure of force in the foliage is more than countervailed by the generation of new azotic compounds capable of exerting a cumulative effect on nutrition: in fact, on this process the vigour of vegetables essentially depends. There is every reason to believe that diastase performs the same duty in the seed as the albuminous deposit at the base of the winter bud, or the same dissolved in the sap.

The only approaches to this idea which have lately fallen under my notice were casually made; one in approval by yourself, and another condemnatory by Liebig. Your exact words have escaped me, but their substance consisted in advice to economize everything "which has had life in it." The sententious and significant allusion of Liebig was in this wise: "It is not astonishing that the effect of animal and vegetable manures were formerly ascribed to a remnant of vital power which should qualify them to increase the vitality of plants. Ascribing their influence in the fertility of the fields to an incomprehensible occult cause, it was forgotten that every force has its material substratum." To me, I confess, it appears almost self-evident that forces may be and are distinct from matter, although from the nature of things generally associated with them. I well remember the effect produced on my mind by the announcement that "the animal organism is a higher kind of vegetable, the development

of which begins with those substances with the production of which the life of an ordinary vegetable ends. The first substance capable of affording nutriment to animals is the last product of the creative energy of vegetables." A beautiful idea and beautifully expressed, but objectionable may I be permitted to add, as tending to mislead us in forming a just appreciation of the primary purpose of proteine and other azotic productions. To whatever uses man, or other animals, or even subsequent generations of plants may apply those products, they must have been originally intended to supply some want in the plants themselves. The great aim of vegetables is probably to provide carbon, the basis of all their structures: the vehicles which accomplish this object for them (with the exception of ammonia) are proximate elements of ligneous fibre, at least a part of them is thus disposed of, another part being restored to the soil for ulterior purposes. In this category I include water, the oxide of hydrogen, since it acts as a base in introducing carbonic acid, and its elements enter into lignin. Under this aspect ammonia would seem to be less important than lime, potash, &c. but there the compounds of nitrogen are more active and subject to rapid transformations; its salts in general are more soluble, and as it is known to be exhaled and expelled from the circulation under various excrementitious forms, we conclude that nutrition in some way depends upon its movements, particularly as those movements and ligneous growth correspond, if an adequate supply of organizable matter be sustained naturally or artificially. In proportion as the alkaline earths and alkalies (ammonia among the rest) present themselves on the surface of vegetables to the external elements in their immediate neighborhood, will be the generation of organizable matter in the sap; and the elimination of effete materials will preserve a constant ratio with the deposition of fresh tissues; in other words, the measure of growth in animals and vegetables, not merely as regards size but reparation of texture, mainly depends upon the integrity of the secreting and exereting functions. That the nervous system in animals, and solar influence in the case of vegetables, are mere accessories to growth, not principals, is an opinion which cannot be invalidated by the fact that they have become by imperceptible degrees through countless ages essential to the existence of high toned races. If the development of higher compounds be the most remarkable fact connected with vegetative phenomena, the reduction of the same to lower grades, their metamorphoses, and in some instances their total disintegration are equally interesting features in the process and as important in their results. It is worthy of note, that the bases which are the most efficient means of furnishing food to the plants, are also the most efficient in disorganizing the same, when the occasion calls for it. The presence in the sap of alkalies which are partially liberated during the construction of lignin, pectin, cellulose, &c. is favorable for the destruction of contiguous azotized matters by robbing them of carbonic acid. In this way the death of one compound contributes to the life of another, and individual losses redound to the general good. Now it may be a seeming paradox to state that the greater the loss the greater the gain, but the doctrine will apply to vegetative in common with other functions; that is to say, the extent to which any one function may be stimulated is subject to the powers of digestion and the comparative repose of other functions not necessary to life.

I am aware that a distinction has been drawn by Physiologists between the modes of growth in the two departments: that in the higher order of animals all the soft textures are liable to be removed by the absorbents, and restitution made by arterial vessels; that in the lower orders also, the type of change is preserved: whereas in vegetables a statie equilibrium is said to prevail, by which is meant, that they never cease to grow in dimensions as long as life lasts. Upon a close examination of the phenomena, the difference appears to me to consist in degree rather than in kind, and the primary object of change to be the generation of a force which is transmitted from materials in use (in esse) to materials for future use (in posse). As well might it be argued that man never ceases to grow, because his osseous structure, which is equivalent to the ligneous structure of plants, under ordinary circumstances does not grow less although it may grow more: and as a consequence, we find ossification a last resource, sometimes fatally misdirected, to sustain the faltering condition of other portions of the body.

The very power of dissolving carbonaceous alimentary deposites justly claimed for diastase as it is termed in seeds, gluten, &c. in plants, can only proceed from the elimination of some imponderable force as in other molecular changes. The fragrance which is wafted from the woods in spring-time while the leaves are actively employed, and which descend with the dew at night-fall; the odours exhaled during the season of efflorescence, are no mistakable evidences of chemico-vital reactions: the constant interchange of gases themselves, differences of temperature and temperament connected with their ingress and egress may well justify a suspicion and a reconsideration of the subject. It is a well known fact that plants perspire most profusely, and generate the strongest perfumes where they grow most rapidly and in the greatest luxuriance. Many of our wild indigenous plants which thrive in favored localities emit a putrid smell attributable to nitrogen; and the beautiful colours which decorate their blossoms are due likewise to deposites of the same redoubtable element. Were we to regard exhalations as merely mechanical effects, I should contend that the change of form or consistency would be attended by electrical phenomena; but I am emboldened to argue that if in the voltaic series the oxidation of the zinc plate produces a force in the copper-plate such as will precipitate one of the elements in the electrolyte, a *fortiori* the eremacausis of organic and semi-organic substances in the vegetable might be expected to produce results corresponding with the complex condition of the molecules concerned. Absorption and exhalation, composition and decomposition are usual alternations incident to porous substances of every description: in one view of those phenomena they are apparently designed to restore an equilibrium of elements in a state of disquietude, and must be considered as fraught with equivalent influences, whatever those influences may be. It may be urged against the verisimilitude of this theory that it confounds the chemical and vital properties of bodies: the same or nearly the same objection has been raised by Vitalists against Chemico-Physiologists who now are in the ascendant.

Oils and bitter principles contain an excess of hydrogen: by becoming oxidized they also must evolve the same characteristic force in vegetables as in animals; to wit, the gradual acquisition of strength, whether it consist of bone-muscle, nerve

or vegetable fibre. "The branch of a willow, which contains a large quantity of starch-granules in every part of its woody substance, puts forth both roots and leaves in pure distilled rain water; but in proportion as it grows the starch disappears, it being evidently exhausted for the formation of the roots and leaves. In the course of certain experiments Mr. Hyer made the interesting observation that such branches when placed in snow water (which contains ammonia) produced roots three or four times longer than those which they formed in pure distilled water, and that this pure water remained clear while the snow water gradually acquired a yellow color." How did this ammonia act? My answer would be, that whatever forces (external and internal) were available at the time of the plant's immersion in the snow water went towards forming more complex azotic principles, which were subsequently reduced with the effect alleged. We are not debarred from supposing that a large portion of ammoniacal compounds found in the juices of plants is in one sense excrementitious; that they are retrograde products formed (like carbonic acid and urea in the animal circulation) by the action of oxygen on various azotic compounds of higher degree. Neither are we bound to believe that (as was formerly claimed for choleic acid in the case of animals) they can be no longer serviceable: their expulsion would depend upon whether there be a deficiency or an excess of other nutritive bases in the sap, or of such stimulants as promote growth by their decomposition and elimination. We also concede that their *presence* may be subsidiary to molecular movements, since the transfer of imponderable forces from one inorganic element to another in immediate connection, according to their respective capacities, is a very decided cause of chemical action.

On these grounds I contend that the vegetative forces are much economized by the use of such manures as furnish plants with compounds of nitrogen higher in rank than ammonia. "It is much less the quantity of ammonia yielded to a soil by animal excrements, than the form in which it is presented by them, that causes their great influence on its fertility." The common notion of growth recommends itself to the prejudices of those who relish startling effects from inconsiderable causes. We are assured that vegetables are designed to generate highly organized substances out of almost simple elements; but to my mind there is equal beauty in the idea that nature makes no sudden leaps, but by gradual steps proceeds to higher and higher creative efforts; that the lower plants serve to nourish those above them in the scale, then again animals of low degree, and then again animals of high degree. Were civilized man to prey on his fellow-man as do cannibels, he would soon cease to fill his high destiny, not by reason of an unnatural diet as some might suppose, but by an undue stimulous given to his propensities at the expense of the intellectual and moral portions of his brain. Neither taste alone, nor moral instincts alone prompt him in the selection of victims to his appetite, but also an experience of their good and bad effects generally. In his ability to form within himself certain compounds which are not always present in his food, he partakes of a common character with every living thing. It is not every animal then or vegetable that can support man in the plentitude of his faculties; it is not every green herb that can satisfy the ox or the sheep; neither can the purely inorganic elements develope in perfection the rarest specimens the pride of the forest or of the garden. In thus presenting animals and vegetables as they should be, I do not enquire into the best means of cultivating the muscular, the nervous, the ligneous or any other system in particular, but all of them combined in just proportion.

Liebig attributes the alleged excellence of nitrogen to phosphorus, which is its constant attendant in the proteinized ingredients of barn-yard manures.—Nitrogen is however found to sustain its character under other conditions. Ligneous fibre is surely no further indebted to phosphorus or sulphur than it is to nitrogen for its constituents; nevertheless, it recognizes all three as aids so far as they augment the vegetative forces and accelerated growth, by whatever process the effect is produced. The most valuable plants are conceded to be those which furnish the proteine bases in the greatest quantity and with the least impurities or noxious accompaniments; for in them are included the chief materials of the animal proper, considered from the same point of view as the tree proper, viz: its frame-work consisting of bone, muscle, and cellular substance. The hydrocarburets then are presumed to take the same position in reference to animal growth as azotic compounds in reference to vegetable growth.—Perhaps it would not be a legitimate inference from the insoluble earthy remains of early vegetation in the carboniferous era that the solubie alkaline bases took no part in the structure or construction of primeval plants, but it is more than probable that the volatile alkali did; and that in every species from the first dawn of their creation it was the nutritive stimulus, the solvent of humus, silica, &c. par eminence. In order to test the qualifications of nitrogen at the present time, its compounds should be entirely omitted according to Liebig's recommendation from the chemical preparations intended as a substitute for common dung. The best interests of agriculture demand an earnest attention to the most economical methods of cultivation: to throw lime, silica, alumina, or even the alkalies on land which already possesses the proper proportions would be worse than useless, if there be a deficiency of the organic elements. Too much of a good thing may do harm, but I am yet to learn an instance in which there can be an injurious excess of the organic elements, carbon and nitrogen, when the inorganic are sufficient.

These views whether correct or not cannot be otherwise than salutary in practice, as they lead us to appreciate the value of our own resources without making us indifferent to auxiliary means from abroad. To agricultural chemists we are under deep obligations for calling our particular attention to those means; but it still remains an open question, whether it is more economical at certain prices to furnish worn-out land with organic or inorganic manures: in either case it may without doubt be renovated. In some situations a field may be sooner dressed with guano, poudrette, &c., but then to bring it into equal condition with another to which common dung is applied would require perhaps two or three successive crops to be inhumed; upon which the time and labor bestowed must be considered in forming our conclusions. In gardens near the homestead well-rotted compost heaps are preferable for many reasons; and I would add, blessed is the man whose fields also are full of them; he will not be ashamed to chat with a neighbor at his gate.

During the present winter, when the ground was open, I have on three different occasions seeded as many plots in rye, in order to ascertain whether we

may venture on the practice in this latitude. The young crops have been well tried by alternations of frost and thaw, and yet present a promising appearance where the ground is good. My plan has been to select gravelly soil, and to cover the grain with the plough, supposing that the air enclosed will in some degree act as a non-conductor of caloric. I also sow the seed thickly, so that if any be winter-killed, their death may contribute to the life of their companions; an expensive method it cannot be considered under the circumstances. As far as the inorganic elements of good grain are concerned, of course there is much reason to extol the ingredients, and I would myself be very unwilling to part with the organic (carbon and nitrogen), as I would with the ammoniacal portion of guano, which I also used. With the light lately shed upon the solvent qualities of the atmosphere, or rather upon the capacity of atmospheric space to hold minute portions of otherwise intractable matter in suspense, I should be more disposed to believe that plants derived a considerable per centage of their inorganic constituents from the atmosphere than that they abstracted none of their organic elements from the soil.

I will conclude by stating the result of another experiment not altogether foreign to the subject. In my garden were several apple-trees of good quality and of respectable age, which on account of their shade were not very desirable occupants of the space allotted to them. At first I hesitated whether to cut them down, or to amputate some of their largest limbs. However during the winter of 1846-7, I determined to use the saw; and the consequence has been, that immediately below the wound as far down as the ground a long black stripe of bark may be seen which threatens dissolution at no distant day to the whole trunk. As an experienced friend remarked, I made two mistakes: the one consisted in not protecting the exposed surfaces from the weather, and the other in not selecting a more favorable season of the year, when the trees are in full vigor, and better able to repair damages. But old trees like old patients cannot bear extensive operations. The facts presented would seem to prove that trees derive their only supply of organizable matter from above; but it may be that when the suction occasioned by exhalation from their leaves be suddenly withdrawn from large branches, and still more from the whole tree by a total deprivation of foliage, the force of absorption by the roots is measurably lessened, and consequently the loss of an important excreting function may be as fatal to living beings as the want of alimentation itself. R. S. W.

Washington County, D. C.

UTILITY OF SOWING WHEAT IN JULY.

WHEATLAND, 8*th March*, 1848.

Mr. Editor,—In reply to the enquiry of "A Patuxent Farmer," in the March number of the Farmer, I will state, that I have made enquiries of several of the friends of early sowing, and have been informed by a neighbor of Mr. Hossenger, of Newark, Delaware, (*who was the first to sow wheat in July* in this country,) that his practice has been for five or six years, to sow wheat amongst his corn in July, and cultivate it in, from which practice he has obtained as high as 25 bushels per acre. I also understand, that during that time he has not failed to make a good crop but once. Mr. Hossenger continues that practice,—many others in that neighborhood have adopted the same plan; others have sown cornstalk fallow, and even clover-lay, with a like good result. Mr. Hossenger and most others, do not approve of pasturing down their wheat, either in fall or spring. But Mr. *Wm. Bowman*, one of the best and most successful farmers of St. George's Hundred, is in the habit of pasturing his July sown wheat with sheep. Possibly pasturing with sheep would be no disadvantage if Fly was in the wheat. I should prefer to risk the fly, and not pasture. The July wheat sowers are generally our best farmers, and our best farmers generally at this day of agricultural improvement, put in all their fallow wheat with the *Drill*. I have not sown any yet in standing corn, but I think I will put in in that way, next July, and either cultivate or have a machine made with five drills, nine inches apart, to run between the rows of corn. I have been in the habit of planting with the drill in rows 4 feet 6 inches apart, and one stalk in the hill, one foot apart in the rows. Although I have seen others sowing wheat in July with great success, I have never yet sown any till near the last of August, and too often, late in September. I am so well satisfied with the practice of Mr. Hossenger, that I shall try to get in all my wheat this year, at least a month earlier than I have ever done before. I think Mr. Hossenger sowed once as early as 23d June.

It is gratifying to us on the eastern side of the Bay, to hear of, and occasionally see, the improvement going on on the Western Shore—for I too, had the pleasure of seeing those manure heaps on Col. Capron's field at or near *Laurel Station*, a few weeks since, and those drains and that white fence too, and I was equally well pleased to see about as good a dressing going on near home, on the farm of Mr. *Henry Kibler*, of Bohemia Manor, Cecil County, Md.—but Mr. Kibler, like Col. Capron, is one of the very best farmers on this side of the bay, as you may judge from the fact of his having taken twelve hundred and twenty bushels (or 24 bushels to the acre,) of wheat the last year, from a field from which three hundred and twenty only was taken when last in wheat, and considered a good crop at that.

Mr. Kibler started, as most other good farmers start, by putting on *lime, which made clover*—not neglecting his farm yard manure heap—which, together, has and always will, make the wheat and corn grow,—with this difference, many improvers had the *means*, as well as the *will*, to begin with, (this will, by the by, is more than half the battle,) but Mr. Kibler had but little else than an honest face and hard hands, by which to obtain credit, wherewith to purchase lime, marl, &c. Mr. Kibler procured his lime on a credit, and in four years after he first determined to lime his farm, which consists of over 300 acres, he had the whole covered at the rate of 40 bushels to the acre, and paid for, by a portion of the crops grown; a kind of rent in which the limeburner was amply paid for his lime, and Mr. Kibler was as well repaid for his labor—and the above is the result. He is now top-dressing all his land with marl, not neglecting his barn yard at the same time.

Other valuable improvements have come under my notice, one of which I will mention. Mr. *G. G. Whitaker*, purchased an old field for ten dollars per acre, near Principio furnace, about five years ago, upon which he put on about 50 bushels of quick lime per acre at first, and subsequently gave it a further top-dressing of ashes, upon clover, of 200 bushels per acre, with perhaps a portion of barn yard manure, but no other bought manures. Last fall I was invited several times by his neighbor to go and see upwards of 100 bushels of corn grown, some said 110 bushels, by estimation. I did not go to see

it, but a few weeks since, Mr. Whitaker told me, that he took between 2300 and 2500 bushels from twenty-five acres. This is pretty good for old Cecil —Is it not?

N. B.—If you or any of your valuable correspondents, Patuxent Farmer, Learner, Col. Capron, Stabler, or others equally zealous in the cause, can tell us where we will get a market, permanent, we of the Eastern Shore will try to keep up with you in producing. I was at the Brandywine Mills yesterday; every mill was stopped grinding corn. The reason why, was said, because a load or two of beans, perhaps *blue beans*, had arrived in England from Egypt, and blocked off our meal. J. JONES.

Lime in Planting Trees.—Many object to planting trees, either for orchards or use, in consequence of the numerous failures they experience. This, however, it should be recollected, is not a necessary result. With proper care there is no more difficulty in transplanting than in planting or propagating from the seed germ. In setting trees, we have ever found that they do best when taken up in the fall, about the time the leaves drop. Fruit and forest trees, shrubs and perennial plants of all descriptions, may, at that season, be removed with perfect success. In setting we usually put a small quantity of lime in the hole —about half a peck to a tree, mixing it thoroughly with the mould, in order that it may be easily accessible to the roots, which ramify in every direction in quest of food. An English publication says that an extensive plantation of trees has been formed within a few years, without the loss of a single tree, and this has been effected simply by putting a small quantity of lime in the hole before depositing the tree. Four bushels are said to be amply sufficient for an acre. The effect of the lime is "to push on the growth of the plant in the first precarious state." There seems to have existed, at first, an apprehension that liming the plant would force it on prematurely, but this apprehension experience has demonstrated to have been perfectly groundless.—*Maine Farmer.*

Of the benefit of lime about fruit trees we have long been convinced by its use. Old plaster, burnt shells, and bones, exercise important and beneficial action, and especially in spots where a tree has failed and been removed, as without fresh earth and lime it is almost impossible to make a new tree thrive in the same place. All fresh manures are injurious to recently planted trees.—*Genesee Farmer.*

Wheat Crop Increased by Ammoniacal Manures.—On a piece of ground cultivated in 1843, by Mr. J. B. Lawes, of Rothamsted, England, which had not been manured, the yield per acre was 16¾ bushels of wheat, and 1,115 lbs. of straw. This may be considered as the natural produce of the soil, subject only to the atmospheric influence of that particular season. The same space of ground was cultivated and manured for three consecutive years, with the following results:

In 1844, the application of 560 lbs. of burnt bones and 220 lbs. of silicate of potass produced 16 bushels of wheat and 1,112 lbs. of straw.

In 1845, 1¼ cwt. each, of sulphate and muriate of ammonia, produced 31¾ bushels of wheat and 1,244 lbs. of straw.

In 1846, 2 cwt. of sulphate of ammonia yielded 27¼ bushels of wheat and 2,244 lbs. of straw.

In another experiment, a quantity of farm-yard manure was weighed into two portions, at the rate of 14 tons each per acre, one being burnt to ashes, and the other ploughed into the soil; the product of the unburnt dung was 22 bushels of wheat and 1,476 lbs. of straw; and that of the ash, 16 bushels of wheat and 1,104 lbs. of straw.

Hence the absolute necessity of supplying nitrogen (the essential part of ammmonia,) to enable the soil to produce more wheat than it could do in a natural State.

RESPECT TO THE MEMORY OF JOHN P. C. PETER—COMPLIMENT TO CHARLES CO. AGRICULTURAL SOCIETY—MONTGOMERY COUNTY AGRICULTURAL SOCIETY

On this 7th day of March, in the year 1848, the Society held its first quarterly meeting for the year, in the Office of the Register of Wills. Geo. W. Dawson, Esq., one of the Vice Presidents was called to the Chair. The meeting being organized and the record of the previous meeting having been read—upon motion of Mr. Wm. H. Farquhar, the following resolutions were offered and passed, to wit:

Resolved, unanimously, That this Society has heard with deep regret of the death of John P. C. Peter, its late excellent President.

Resolved, unanimously, That we sympathize deeply with the connections and friends of the deceased, in their grief at the sad event which has left so wide a blank to them, to the community generally, and to our society in an especial manner.

Resolved, unanimously, That we will cherish the recollection of Mr. Peter's ardent devotion to his favorite cause of Agriculture, his enthusiastic and generous interest in the welfare of our particular Society, and that his noble example shall nerve us to renewed efforts for the promotion of Agricultural improvements, and for the progress and success of this association.

Resolved, unanimously, That a copy of these resolutions be transmitted by the Secretary to the family of Mr. Peter.

Upon motion of Rob't P. Dunlop, Esq., the following order was presented, to wit:

Ordered, That the members of the Society, now present, shall now proceed to select one of the Vice Presidents to fill the remander of the term of the late President, made vacant by his death.

Which the Society refused to adopt for the reason that, in such cases, the duties of the President devolve, under the Constitution, on the Vice Presidents, or any one of them.

It was—

Resolved, That the Executive Committee shall be authorized to adopt such measures for the collection of arrears of subscription, as to them shall seem advisable, and to incur such expense thereon as shall be necessary; which expenses shall be paid out of the funds of the Society.

Upon motion of F. C. Clopper, the following preamble and resolutions were introduced, and unanimously adopted, to wit:

Whereas, since the last quarterly meeting of this Society, a portion of the citizens of our sister county of Charles, respectable alike for their numbers, and personal worth, have for the improvement of their Agriculture, formed themselves into an association

similar to our own, and have paid us the high compliment of making our Constitution the basis of theirs, therefore

Resolved, That we hail with great satisfaction, the advent of our brethren of the plough in Charles, into the field of regular and systematic effort at Agricltural improvement: that we highly appreciate the compliment they have paid us in making our Constitution the basis of theirs, and that we most cordially tender to them the right hand of fellowship.

Resolved, That the Corresponding Secretary of this Society do transmit to the Charles County Agricultural Society, from time to time, a copy of the proceedings of this Society, and respectfully request of that Society a reciprocity of communications.

Resolved, That the Secretary cause a copy of these proceedings to be published in the papers of this place, and in the American Farmer, and that the Society do now adjourn to the first Monday of June next, at which time there will be an election of officers for one year.

W. VEIRS BOUIC, Secretary.

REMEDY FOR THE CANKER WORM.

The following communication treats upon a subject of deep interest to every man who owns an orchard, or fruit trees of any kind, that he may desire to preserve in health. As for ourselves we do not undertake to say whether the remedy will or will not prove effectual, but we will say, that it carries on its face much that is plausible, and that we think it worthy of trial. We copy it from the *Iowa Farmers' Advocate:*

MR. EDITOR: J. J. Thomas, in the Fruit Culturist, says that no remedy for the Canker worm has yet been discovered of an easy, safe and effectual application.

Now sir, having had something to do with this pest to Orchards, permit me through the columns of your valuable paper, to give a description of, and the experiments had with the same.

The Canker worm is in some parts of the country one of the most destructive insects to the Apple Tree known, and where well established, will, in the month of May and June, strip them bare, making them as leafless as in autumn. After feeding about six weeks, they will descend and enter the ground about 5 or 6 inches, where they change to a chrysalis state, ready to appear after a few days of warm weather in the Spring, and will continue to make their appearance for four or five weeks. The male is a moth with wings of a pale ash color. The female is a dark ash color destitute of wings, and when they first appear on the tree seem to be clumsy and very slow of motion.

They do not, as some have supposed, arrange their eggs in rows and glue them over, but on the contrary thrust them without regard to regularity or order under the scales of rough bark along the trunk and principal branches. They will ascend also to the extremities of the tree, all the way sticking their eggs in small cracks, or filling the nest of the tag worm which is commonly found hanging to the limbs of the Apple Tree. Every female lays from 3 to 5 hundred eggs, which are of a shining pearly appearance at first, but soon change their color to a greenish hue, and from that to a purple color just before hatching.

About the first of May the eggs are hatched out, the worms then, are of a brown color with a yellow stripe, and commence preying upon the leaves and frequently the young fruit.

To stop the ravages, or destroy the Canker worm various methods have been tried. It seems that the most effectual method would be, that, by which the ascent of the female would be prevented. To affect this some have encircled their trees with *tarred* ropes. Others have surrounded the trunks with circular leaden troughs filled with oil, and all with some partial success, but not of that practicability and cheapness which would bring them into general use. In the summer of '44 the Canker worms made their appearance with us in great numbers, stripping many trees of their leaves, and to so much greater extent than any previous year that we became alarmed at their rapid increase. After experimenting with them, and noting their various changes, from the eggs when hatched, to the worm, through the chrysalis state, to the female form, we came to the conclusion as the female seemed so weak and slow of motion that by tying small bundles of straw tightly around the trees with a single bandage about 2½ feet from the ground, letting the ends of the straw stand out from the trunk, that it would prevent the ascent This we tried early in the spring of '45, and found upon examination numbers of the female collecting daily on the trunks of the trees under the straw, where they would remain for a few days only, or so long as they remained in a weak and torpid state. Finding them in that situation we commenced washing them with a flat cushioned hand maul, regularly every morning, gently pounding the bundles of straw, just below where they were tied. Thousands were killed in this way. This method we tried upon seven hundred trees, regularly every morning, or so long as the moth continued to arise, after that we took of the straw and burned it, then with a brush we applied lye to the trunks and principal branches of the trees.

This speedily and effectually put a stop to the Canker worm with us. Not having occasion to repeat the operation since. H. A.

Desmoines Co., Iowa, Feb. 3, 1848.

For the American Farmer.

METHOD OF MAKING MANURE IN S. C.

Dear Sir:—I write to describe a system of manuring carried on on a well conducted tillage farm I visited lately. As I felt the visit had been useful to me, I also felt that it was unkind, unfair and unjust, to allow myself from a want of confidence in writing, to be the only one benefitted.

Though living in a latitude with an almost vertical sun in summer, we are not asleep, but advancing rapidly in agricultural knowledge, for which we are deeply indebted to agricultural papers. From their pages have sprung that determination now existing, to allow our forests to remain in their primitive beauty, and to restore our hungry soils to their original strength by an abundant supply of manures, vegetable, mineral and animal. It has become evident to the most thoughtless and lazy, that to manure is to succeed, to neglect is to starve, hence, when a man does not manure, he is considered and called a fool! But there are different ways of making manure, and all are not gifted with the same judgment—some are always busy and yet losing time, others with cool judgment are never hurried, yet have time and materials to spare. The latter is the characteristic of the proprietor of the Grove.

The Grove contains about two hundred and forty

acres—it is situated on the salt-water, a peninsula, almost surrounded with marsh. The soil or mud which produces it, is flooded at every tide, and the marsh and mud stand unrivalled as manure for cotton, and indeed good for everything. This farm is divided into four fields of sixty acres each, two of which are planted in sea-island cotton. The labor of one man with a cart and horse, employed from January to January, produces manure for one hundred and twenty acres, equal to seven thousand one-horse cart loads!

To accomplish this, the following arrangements are adopted. There are twenty-eight cattle stalls provided for the stock kept. These stalls are filled with trash, muck, &c. to the depth of two feet, and contain about five loads of manure. Each day the carter carries out the contents of one stall, and places it in some central and convenient part of the field, and covers it with twenty or twenty-five loads of mud and marsh roots. The next day the contents of the second stall is carried off to the same spot, and again covered with the mud, joining alternate layers of compost and mud, and continues this until the mound is twenty-eight or thirty feet in diameter, and from eight to ten feet high. There being twenty-eight stalls and one emptied each day, you perceive that the trash in each is one month under cattle—that being compressed, little or no fermentation takes place—and after it is carried in the field it is immediately covered with the salt-mud, which absorbs all the gases arising, and becomes a stronger and more useful material for light and sandy soils, than the trampled trash beneath it. In passing these mounds months after they have been finished, if they remain undisturbed, you perceive no odour, but the moment they are opened the surrounding atmosphere is filled, showing how completely the gases are enclosed. These mounds contain from seven hundred to a thousand loads, and as soon as one is completed another is commenced.—This work is *constantly* carried on.

Under this system manure is never wanted—the carter has a check on him by the method and regularity of the arrangements, for the contents of each stall must be hauled out on a certain day—he has no other work—is *never* taken off—a spare cart, horse and harness is kept for him—and if he is attacked by sickness, another takes his place until he is again at work. He at length takes pride in the keep of his horse, in the neatness of the work, and in the quantity he performs—he sees and feels that the crop is dependent on his labours. From habit his work becomes easy, and his task of twenty or thirty loads a day is expeditiously and neatly performed. Under this method the lands thrive from day to day, and no investment pays more certainly than the labour of this man with his cart and horse.

I should mention that the trash in the stalls is not furnished by the carter. The day a stall is emptied, it is refilled by other hands, a work where materials are abundant, easily accomplished. A stall is therefore emptied and refilled every day. This *must* be and always is done.

This is not all the manure applied. The hands when not engaged in field work, collect sea-weeds, mow the tall marsh, rake trash, which when drenched in salt-water is carried upon the land and turned in most abundantly, and the compost mounds are cut down, and then hauled off by the cartmen employed for that purpose, and spread over all—cotton—the sweet potato—and the cow pea (our clover) thrive with this food, and corn after any of these crops rarely fails, and is abundant when aided by cotton seed—a manure unsurpassed by—Guano.

The vine of the sweet potato and the cow pea—the blades and shucks of the corn, cured and housed, keep all the stock on the farm in good condition.

Green crops are not attended to with us, not that we place no faith in them, but that the marsh cut and applied either green or cured, or allowed to remain on the river banks, stacked in, is from the salt and a dark slimy substance it collects from the water, superior and cheaper than any green crops we could cultivate.

But, Mr. Editor, I run away with my subject—my excuse is a failing common to human nature, we are all prone to think that what interests us must be pleasing to others. My only object was to show how much a man with a cart and horse can accomplish, when his labor is applied to a single work.

I leave you to determine the value of this—I have attempted to be of some use—if I have failed, I have done all that I can attain unto.

I remain your sincere friend,

SEA ISLAND.

For the American Farmer.

A SOVEREIGN REMEDY TO PREVENT LOSS FROM WHEAT TURNING TO CHEAT OR CHESS.

A RAT AND MICE PROOF CORN HOUSE.

Having a leisure hour this evening, I am induced to make the effort at least, to benefit some of my brother farmers, in return for the gratification and benefit derived from the perusal of the many able essays which have appeared in the American Farmer during the past season.

I have not the vanity to think it is in my power to convince all to my way of thinking, on this much vexed question; for after reading so much on the subject *pro and con*, I have almost come to the conclusion "that even if one rose from the dead," and denied the favorite theories, without having the most irrefutable evidence, there are those who would still adhere to preconceived opinions; "circumstantial evidence strong enough to hang a man" would produce little or no change of opinion on the minds of some.

Nor do I propose to enter into any arguments to prove the proposition: whether wheat does actually change or "turn to cheat," or whether cheat, by some unexplained and unaccountable freak of nature turns into wheat; for to express my honest convictions, I consider one just as reasonable and probable as the other. My object is to inform those who are "believers" in the doctrine of transmutation, *either way*, of a plan that has proved eminently successful with me; and if strictly followed, will no doubt produce the same results with others.

I must confess, however, that in my early farming operations, many circumstances occurred that tended to convince others, and what I could not at the time, satisfactorily account for.

In one case, I had sown a ten acre field with very clean seed as I thought; but late in the spring, a storm prostrated a portion of the fencing, and before it was discovered, some half an acre was destroyed by the stock; when harvest arrived, it was observed that on this *pastured* part, there was "quite a fair crop" of cheat; and comparatively but a small portion on the adjoining land, where the wheat was uninjured.

I was told that such was the necessary result of in-

jury to the wheat at this stage of its growth; "as it was sure to turn to cheat."

It certainly *looked like it*, for the wheat sown on that part, was the same as the rest of the field—other cases occurred quite as strong and *convincing* as this: but notwithstanding, the remedy was persevered in, and I now give the *practical* result, both in my own case, and that of a neighbor who is a firm believer in the *fact* of transmutation.

Several years since we both obtained some wheat of a new variety, and, originally no doubt, from the same source. It was (mine at least) anything but *seed* wheat, although purchased as such; for it had cockle, garlic, rye, and cheat in abundance; the garlic and most of the cheat were separated by carefully swimming in strong brine and skimming the surface; and by a simple addition to the fan,* it may be rendered quite clean from cheat; nearly all the cockle and rye were seperated by a hand riddle, being smaller than the wheat.

I continued sowing my own wheat, and my neighbor his; and recently he informed me, that in a crop of 118 bushels, he actually realized *twenty-eight bushels* of "pure cheat"—nearly one-fourth of the whole crop! and as the razor-strop man says, there was no doubt "a few more left of the same sort" in the ninety bushels of *wheat*. With a different *practice* (to say nothing of the *theory* of transmutation, which he, as well as many other sensible men advocate) my crop of several hundred bushels was so clean of cheat, that it was a difficult matter to find a single grain.

Now for the *remedy* against transmutation. It is simply to *sow none but perfectly clean seed wheat*; or as clean as it can be made, regardless of the requisite time and labor: for, "such as ye sow, such shall you surely reap."

I would as soon expect to gather *peaches* from *pear trees*, as to harvest a crop of clean wheat, from such seed as some farmers consider "clean enough to sow." If the seed is clean of cheat, and the land also, I will guarantee the crop to be equally so.

Unfortunately, my farm was pretty thoroughly seeded with cheat before it came into my possession, and it required years of care and attention to eradicate it. Farmers cannot be too careful in the selection of their seed; for the increase of cheat is perhaps five fold greater than wheat. If the land is "well set" with cheat (almost certain to be the case, without great and continued care in the selection of seed) and the wheat should sustain an injury, as in the case alluded to, the cheat will spring up, and supply its place.

While the pen is in hand, I will notice a communication in the last number of the Farmer, over the signature of "A Subscriber;" he asks, "What is the most approved modern plan of a corn-house? freedom from vermin, and convenience for the easy unloading of wagons, and storing the grain away, to be taken into consideration. The buildings if admissible, to contain an open space for the shelter of wagon, cart, &c." I have not seen a corn-house, which will combine under one roof, all these advantages; but having constructed one that proves a perfect protection against rats and mice—the most important point queried after, will describe it. The cost was 80 to $100—and the annual saving "from vermin" is more than the interest of the cost; with the satisfaction of *knowing and enjoying*, what we eat; valued rather higher than the saving of a few dollars and cents.

The building is 12 by 20 feet; standing on six brick pillars, 18 inches square and 2½ feet high; capped with 2 inch plank, and projecting over the pillars 4 to 5 inches. On the *edges* of these caps, strips of sheet iron about 5 inches wide are nailed, and projecting 3 inches *below* the caps. It was tried without the strips of sheet iron, but proved unsuccessful; for the mice managed "some how or other" to work their way into the house. The sills rest on the caps and the weight of the building precludes all danger from careless backing of the cart or wagon; the eves project all round about 2 feet in width—the portion devoted to corn is lathed vertically and ten feet in height will hold 120 barrels; the other portion is divided into six tight, but moveable granaries, that will contain about 400 bushels of grain if necessary. Should "A Subscriber" desire further or more definite information, it will be furnished with pleasure.

I am very respectfully,

A MONTGOMERY FARMER.

*Let the wheat pass from the hopper over a board to within 4 to 5 inches of the outer edge of the riddle—in fact using the board in place of the upper riddle—and drop several inches, on to the lower riddle; the cheat is thus blown away, being much lighter than the wheat. This plan is more effectual than the best Fan I have ever seen, used in the ordinary way.

CURE FOR HYDROPHOBIA.

The following paragraph has been transmitted to us by Prof. *Baer*, with the request to republish it. In the note enclosing it, dated Sykesville, March 24th, he says:

"The enclosed *recipe* I found in one of the Baltimore papers. *I am perfectly satisfied that Chlorine is a preventive of the Hydrophobia*—having made the experiment on my dogs several times. Two of the dogs were bitten in my presence. I immediately applied the *Chlorine of Soda* to the wound, and then washed the whole body in the *Chlorine Solution*. My dogs were not affected, whilst my neighbor's dogs became diseased and were killed.

Your's with respect,

WM. BAER."

HYDROPHOBIA.—We have been requested to republish the following, said to be a preventive of hydrophobia, as discovered by a French physician, M. *Cossar*.

"Take two tablespoonsful of fresh *chloride of lime*, in powder—mix it with half a pint of water, and with this wash keep the wound constantly bathed, and frequently renewed. The *chlorine gas* possesses the power of decomposing this tremendous poison, and renders mild and harmless that venom against whose resistless attack the artillery of medical science has been so long directed in vain. It is necessary to add that this wash should be applied as soon as possible after the infliction of the bite. The following are the results of this treatment:—From 1810 to 1824, the number of persons admitted into Breslau Hospital, was 184; of whom only two died—from 1783 to 1824, into the Hospital at Zurich, 223 persons bitten by different animals, (182 by dogs,) of whom only four died."

THE CROPS.—We learn from various quarters of the country, that the wheat crop presents a very promising appearance at the present time.

MEDLEY'S DISTRICT, Montgomery Co. March, 1848.

To the Editor of the American Farmer.

It must be a source of great pleasure to every good farmer of old Maryland, to witness the laudable efforts daily making by the intelligent agriculturists in almost every section of the State, to improve the soil, by the adoption of a more rational mode of culture, than has hitherto characterized her farmers.—To what, it may be asked, are those favorable changes in farming to be attributed?—in reply it may be safely stated, that it is mainly caused by the diffusion of agricultural knowledge, disseminated by your excellent periodical, the *American Farmer*, and other publications of a similar import, together with a certain degree of necessity from the impoverished state of the soil. Admitting this answer to be correct, (and it can scarcely be controverted) it follows that the more general the spread of scientific agricultural principles, the greater desire will there be evinced by the farming community to improve their lands, particularly since the other condition, (poverty of soil) exists to a full extent. Since July, 1845, when you diffused vitality into the old American Farmer—a period less than three years—seven-eighths of all the agricultural societies which exist in the State, have been formed within that period—combinations, that have prompted many farmers to a course of action that has not only benefitted themselves by the improvement of their lands, but stimulated others to follow in their track; this is not all—such associations have enabled intelligent and enterprising agriculturists, to benefit their brother farmers, by writings and experiments. I question very much, Mr. Editor, whether the community would ever have been favored with the valuable essays of *Capron*, *Learner*, *Patuxent Planter*, *Wood*, and hundreds of others, were it not for the existence of the *American Farmer;* and who can tell the amount of benefit flowing from such a source?

I am well aware there are many farmers who look on book-farming, as of little, if any good—such generally hold steadfastly to the old theory, that mother earth is inexhaustible, that domestic animals are made hardy and much improved by exposure to the elements, farming utensils more convenient in fence corners than if lodged in a general depot, and that health is greatly promoted by manure being carried off by the rains—which obviates the trouble of hauling—a business which the advocates of such a theory seldom find time to perform. Thanks, however, to the spirit of the age, the fallacy of such doctrine seems to be pretty well understood, as to deter most from advocating it in theory, though many, unfortunately, practice it on their farms. "But," says my neighbor, "I admit there are many valuable hints to be acquired from agricultural works, yet there is old Peter Crumbs, who never read a line about farming in his life, is rich, and made it all by farming—why can't others do the same?" That old Peter has made money is certain, and that he has made it at the expense of his land is just as certain; to prove this, stand on yonder hill—view those old fields, over whose sedge-surface the winds now moan so pitifully, singing, as it were a requiem to departed *fertility*, —where are the stately woods that covered those fields?—where is the virgin strength of the soil gone? —the winged tenants of the air can scarcely find a scanty sustenance—yes, where is all gone? Why, where, but into old Mr. Crumb's pocket—and from thence scattered to supply the wants of the new generation. But the injury did'nt stop here, 'tis not confined to the land; you suffer too, neighbor—a tax is levied—the improved lands have to bear the burthen, the impoverished farm scarcely pays anything, whereas had a skilful cultivator possessed it, the same amount of money might have been made, and its intrinsic value maintained. "Yes", continues my neighbor, "I acknowledge the justness of what you say, but there is Jack Span's farm, which you must admit is annually improving, the owner getting richer,—to whom to quote the authority of a writer on agriculture, would be tantamount to insulting him—Again, there is the neighbor of old Span's, who is constantly reading and experimenting, yet, he can seldom equal his book-hating neighbor, in the amount of his crops or even in the increasing fertility of the soil. I think I have you now, friend." On the contrary, neighbor, you will find on a closer examination of those whom you have quoted to sustain your objection against book-farming, that they tend more to prove the necessity of adopting my theory than rejecting it: for instance, Mr. Span's farm, consists of land of great natural fertility, almost inexhaustible resources, requiring little judgment to raise large crops, and just as little scientific knowledge to increase its fertility—objects that could be accomplished by any ordinary overseer; on the other hand, the book-reading farmer, though a near neighbor, his farm consists of an entirely different soil, sandy, thin, badly located, and subject to wash—yet by industry and close study of books, he has in a great measure surmounted those difficulties—now suppose we reverse the position of the owners—and that they exchange farms—who would longest maintain the character of being the best farmer? But why advance arguments on a subject so apparent to all?—Who will deny that those portions of our union most distinguished for agricultural improvements, are those whose inhabitants are alike noted, for the number of their agricultural clubs, libraries, and great improvements in farming instruments.

It is absurd to suppose, that a profession, requiring a knowledge of so many modern sciences as farming does, can ever be well understood or properly pursued, without close application and study. We might as well expect a physician to qualify himself for practising his art without reading, as a farmer, ever to arrive at celebrity without the aid of reading. I sincerely hope the plan of forming agricultural societies, so clearly explained in your February number, by that zealous friend of agriculture, Dr. Wm. Brewer, will be acted on without delay. There is nothing to prevent Maryland farmers from standing number one in their professions—all the elements requisite for such, are amply abundant, a good market, great facilities to transport the products to any point, abundant natural resources, all owned by a community that will compare with any other in the Union, either on the battle-field, at the bar, or in the practice of those social qualities that elevate human nature. Why then should we meekly lie under the reproach, caused by our barren lands and badly cultivated fields, since such can be easily removed?

There is not an election district in the State but ought to have its agricultural club—because there are none, that does not possess the necessary materials for such. Some think differently, many so thought a few years ago, about Medley's, Montgomery Co.—now what's the fact? Why, an excellent society, a good library, and hundreds of farmers zealously exerting themselves in carrying the principles of said association into effect.

Manures of every description eagerly sought after,

lime-kilns erecting by every good farmer, guano liberally used, a hundred tons would scarcely supply the demand for this latter article this spring; oh! I tell you, the farmers *here* are up and a doing—and that is what they ought to be doing in every section of the State. That men of capital as many of the farmers are in Montgomery County, should look on with folded arms—satisfied to pass through life without a single effort to benefit their fellow-citizens, by example, or merit a regret when they "shuffle off the mortal coil," seems passing strange. If there are any class of men who justly merit their country's praise it is certainly those who add to the social happiness of life, by calling into action those treasures which nature's God has so plentifully created for the use of man—the good farmer does so, hence his just claims to the respect and esteem of his fellow citizens. It was the opinion of a great man, that no individual ought to live wholly for himself; that the chief aim of every man ought to be to accomplish something during life that would endear his recollection to his country when he was gone. If farmers possessed more of this ambition than they do, the sad spectacle of seeing thousands descending to the tomb without leaving a trace behind them worthy of imitation, would then be more rare than it is. But enough of this—I perceive in your March No. that an "*Enquirer*," hailing from the old Dominion seeks information concerning Mr. W. King's Cultivator for young corn. When that report was written it was not deemed necessary to dwell very minutely on an article which was supposed to be generally used by the farmers. "It consists of an iron bar 2 by 16 inches long—would weigh five or six pounds; a hole, to admit the bolt—just take off the shovel—put the bar in its place, pass the bolt through the screw on the top—line in hand—up and away, within an inch of the corn—without disturbing the soil much, yet penetrating to the depth of 12 inches."

Respecting the second question of "*Enquirer*," I would say, let him consult the editorial articles on corn-planting, contained in the "*American Farmer*," (of course he is a subscriber,) and I am sure unless he is very slow of comprehension he will find full explanations.

MEDLEY.

APPLES WITHOUT CORES OR SEEDS.

To the Editor of the American Farmer.

I take the liberty of stating to you what little information I possess with regard to the inquiry of your correspondent, in the April number of the Farmer, respecting apples without cores or seeds. Notwithstanding the incredulity of your friend as to the practicability of thus producing apples, it is unquestionably true.

In 1838, I learned from my friend, S. S. Abbott, Esq., now a worthy and intelligent attorney at Hamilton, N. Y., and who takes much interest in agricultural matters, the following: That when he was a youth, attending a country school, there stood by the road side, near the school-house, a barren apple tree. In a freak one day, he and his fellow school boys tore up the tree by the roots, and re-planted it firmly in the ground *invertedly*, with the roots uppermost. Contrary to all expectation, the tree survived, re-rooted, shot forth a new top, and in due time yielded a fine harvest of fruit—*all delicious apples without core or seed.* Such was the character of the fruit ever after. No one could explain this singular freak of nature. At my instance, Mr. Abbott prepared a statement of these facts, and published it in the village newspaper, in Genesee County, N. Y., where we both resided. It, however, elicited no explanatory reply.

When at Toledo, Ohio, in 1843, I happened to mention this matter to my venerable friend, *Paul Hawes*, who, in New England, in western New York, and lastly in Ohio, had devoted time and attention to the cultivation of choice fruits. Experiments in fruit culture formed a passionate past-time with him. His intelligent countenance of more than three score and ten at once lighted up, and he said he knew all about it—that he had often experimented in producing fruit without core or seed, and always with success. That he would bend down some low limb so as to insert its top in the earth, and when it had taken root, would cast it asunder from the parent tree; and when of sufficient age, would produce fruit without core or seed.—Sometimes, he added, there would be observable, a slight indication of the core, but never of the seed. Mr. Hawes has since paid the debt of nature, or I would write him for a fuller statement.

It is stated in Kidder's Sketches of Brazil, that an orange-grower of the city of Bahia made a fortune by supplying the Emperor Don Pedro's table, at Rio Janerio, with superior flavored oranges. The best oranges at Bahia are seedless, and the probability is, that these were the kind furnished for the Emperor's table. Two acquaintances of mine who ate of those oranges at Bahia, express the conviction, since I mentioned to them the fact appertaining to the cultivation of coreless and seedless apples, that the seedless Bahia oranges are produced in the same way.

The facts here stated will enable your correspondent and others who may wish to try the experiment, to test its reality for themselves. Perhaps many of our choicest fruits might thus be very materially improved for use. At all events, the knowledge and curiosity of the thing are not unworthy of attention, and further experience may prove this singular mode of producing seedless fruit of much practical benefit. When we bring to mind the increased richness and delicacy of animal food—the capon, for instance, when deprived of the power of re-production, there are surely good grounds to hope and expect that the flavor of fruit would be vastly improved by the process here indicated.

L. C. D.

Baltimore county, April 1, 1848.

METHOD OF DETERMINING THE WEIGHT OF CATTLE.—The following method of ascertaining the dead weight of cattle by measurement when alive, has been adopted to a considerable extent. It is found to be an expeditious mode; and if not to be implicitly depended upon, at least furnishes a very important assistance to the judgment of the dealer.

Rule—Take the *girth* of the beast by measuring round with a string or tape close behind the shoulder-blade, and the length by measuring from the fore part of the shoulder-blade, along the back, to that bone of the tail which is in a perpendicular line with the hind part of the buttock. Multiply the girth (in feet) by itself, and that product by the length, and then again by 42. The last product divided by 100 will give the weight in Smithfield stones of eight pounds each. If stones of 14 pounds are required, the multiplier will be 24 instead of 42.—*Baxter's Library.*

PREPARATION OF CORN GROUND.

EFFECTS OF GAS TAR—COMPARATIVE VALUE OF GUANO AND ASHES.

To the Editor of the American Farmer.

MR. EDITOR:—I have been a subscriber to the Farmer for some time past, but have never yet ventured to enter the lists as a contributor to its instructive and interesting columns—sufficient has it been for me to study and digest the mass of valuable information furnished by your numerous and talented correspondents—a novice myself, in the great pursuit of agriculture, I have considered my experience too limited to warrant any attempt towards imparting instructions to others—nor do I now ask to appear before your readers in any character other than my signature denotes—which character I should fear sustaining *too fully* were I not satisfied that the courtesy and good feeling which characterize the tillers of the soil, will kindly excuse my inquisitiveness and prompt a cheerful response to my interrogations. A variety of opinion prevails with regard to the best mode of preparing ground for corn,—a majority of the corn growers of our county prefer the old plan of listing (double furrowing) and cleaning out, and assert that experience has convinced them of its superiority—others contend that flushing is the more farmer-like method—as this is a question of moment—affecting the staple product of our State—will you favor us with your views on the subject? Can you inform me whether "Gas Tar" contains any ingredient calculated to retard the germination of seed corn, when applied thereto? I used it last season to prevent the depredations of Messrs. Bluebird, Crow & Co., and found it most effectual, but was inclined to think it somewhat delayed the coming up of the corn. With regard to Guano—would an application of 250 lbs. per acre, be likely to effect as *permanent* an improvement in the soil as would a dressing of 50 bushels leached ashes? I applied a ton, by way of experiment to a part of my wheat field last fall, plowing it in with the wheat,—its effect upon the appearance of the crop is surprising.

In a communication from W. CARMICHAEL, Esq., published in one of your last year's numbers, an opinion was expressed that fallow intended for wheat should be plowed at least four weeks before the time of seeding—this I understood at the time of reading it, to refer to the first breaking up of the ground—my custom has been to plow a second time (some weeks after the first plowing) sow immediately and harrow in—a friend of mine places a different construction on the opinion of Mr. C. referred to, and thinks he would advise that the fallow should receive its *last* plowing at least 4 weeks before seeding time. It would be gratifying if your respected correspondent would favor us with an explanation.

If you deem this of sufficient consequence, Mr. Editor, you can give it a place in your next number—if otherwise—should future experience place me in possession of any facts, the publication of which would be at all likely to aid the cause of agriculture, I may again summon courage to appear before you.

AN INQUIRER.

Kent county, March 15, 1848.

CLOVER SEED.

To the Editor of the American Farmer.

The unusual productiveness of seed in the clover crop of last season, induces me to seize this auspicious moment to offer to agriculturists, the following remarks, referring to the supposed deteriorating influence of age on clover seed.

There is a general opinion that seed is not fit to sow which has been kept over one year, or, that its vegetative principle is less active: Acting on this opinion, a farmer will sell all his surplus seed at four or five dollars per bushel, and be constrained perhaps the following year, to supply his farm at the rate of $8, and sometimes $10. This often happens, as for the last twenty years in our country, we have not had two consecutive seasons favorable to clover seed: this error, therefore, so injurious to the farmer's interest, should be at once corrected.

The seed of the second year may be slower in sprouting than the first, I admit, this may be accounted for, in the increased hardness of the hull, a difficulty easily overcome by soaking the seed 24 hours previous to sowing, in a solution of salt-water of the temperature of 120 Fah. Then dry it with lime, plaster of Paris or ashes, and with a good season and soil, it must grow *and no mistake*.

Let the farmer then, while seed is plenty, attend carefully to its preservation. When brought from the mill, (if perfectly dry) put it away in one or two bushel sacks, suspend them from the joists of his granary, when the temperature is equal, and I will guarantee its fertility for 10 years or more.

No agricultural paper to my knowledge has ever given a hint, on this subject, and should you deem these remarks of any value, you may give them a resting place in your admirable journal.

THE OLD MAN OF THE MOUNTAIN.

March 17, 1848.

DRAINING TILES.

INQUIRY FOR.

To the Editor of the American Farmer.

Mr. Editor:—Permit me, through the medium of your paper, to inquire if it be possible to obtain from any of your brick makers such an article as "*Draining Tiles*" of any form—and at what price per thousand?

The subject of draining has become one of much interest of late, and is now claiming the attention of every good farmer in the State. I have no doubt were the facilities for making drains greater than they are, it would claim a more general attention.—The importance of the subject as a branch of modern agriculture need not be urged at this time, as my desire is to call your attention to "Draining Tiles" particularly—I observe by the "Cultivator" such tiles are now offered for sale in the Western part of the State of New York—and could they be procured here, they would meet with ready sale. Stir up the workers in clay to the good work, and the benefit to the community will prove a great blessing to the country.

SUBSCRIBER.

The desired information relative to the above query is given in the paper from our friend JOHN JONES, published in another page on Draining.

POTATOES FOUND ON THE MOUNTAIN ORIZABA.—M. M. Schiede & Dieppe, in a letter to Baron A. Humboldt, giving an account of their ascent of the great volcano of Orizaba in Mexico, mention they found the potato in a wild state, at the height of 10,000 feet above the level of the sea. It was about three inches and a half high, with large blue flowers, and the potatoes about the size of hazelnuts.

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BALTIMORE: MAY 1, 1848

OUR CIRCULATION.—We owe many thanks to our kind friends and patrons, to whose exertions, during the past year, we are indebted for a very large addition to our subscription list, and as there is no duty more consonant to our feelings than that of repaying a debt of gratitude, we embrace the present occasion to tender them our warmest acknowledgements.—The interest which they have taken in extending the circulation of our journal, while it has imposed deep obligations upon us, will, we feel assured, independent of our poor thanks, entitle them to reap a far richer reward, in the consciousness that, by having thereby contributed to the spread of agricultural science, they have done that which cannot fail to promote the welfare of the country.

Repeating our thanks for favors already received, we conclude, by invoking to continued activity the same generous exertions which have already been so signally devoted to the cause of the husbandman.

CAROLINE COUNTY, MD.—Our April No. had scarcely been issued, before we received a good list of subscribers from this county. We hope it is only a beginning, and that our friends will be enabled by the beginning of a new volume, to present us with very respectable additions.

EASTON, MD.—The following memorandum, under envelope, with two $1 notes enclosed, was received from Easton, Md. post marked "*April* 10."

"Enclosed I send you my subscription to the American Farmer to July 1st, 1848. Amount $2,00."

As no name was attached, we know not whom to credit the above. Will the writer please drop us a line.

TO CORRESPONDENTS.—We have received a communication from that sterling Pennsylvania farmer, Mr. J. L. Noel, on the subject of saving Clover Seed—having two articles already in type on the same subject, and being pressed for room, we are reluctantly compelled to defer its publication until our next.

The facts detailed by our friend and correspondent, "L. C. D." are interesting and worthy of attention.

VALUE OF DRAINED LANDS—MODE OF DRAINING THEM.—The essay on this subject in our journal, by that distinguished farmer, Mr. John Jones, of Delaware, if acted upon by the owners of marsh lands, would increase the value of landed estates millions in amount,—improve the health of whole districts of country, and transform unsightly marshes into fields as beautiful as was the garden of Eden.

SOWING WHEAT IN JULY.—The paper on this and other sujects by Mr. Jones, is full of interest—its facts speak for themselves.

"AN INQUIRER" is informed that we have too much respect for the opinions and feelings of others to express an opinion as to what is the *best* method of preparing ground for corn: but we will say, that we go in for *thorough, deep ploughing, harrowing* and *rolling*, believing that the tilth cannot be made too fine for a plant that will sink its tap-roots 4 feet deep and stretch its lateral ones from row to row. In our April No. our views are fully given on this subject.

There is nothing in *Gas Tar*, if applied rightly, calculated to retard the germination of the seed corn. A pint dissolved in 2 gallons of *boiling* water is sufficient.

If the application of 250 lbs. of Guano were followed by clover, we believe its effects would be as permanent an improvement of the soil as the application of 50 bushels of ashes; but whether the one substance or the other be applied, the judicious husbandman should not neglect to lime his land. All improvements which look to permanency should combine with them lime, clover, and plaster. It is due to candor, to say, that we believe that the first crop after the application of the quantity of *Guano* named, would be greater than the one which immediately followed the application of ashes, the *nutrient* principle of the former manure being at once more *active and forcing* in its effects, than any substance contained in the latter—one of the great virtues of ashes being, to convert other substances into the food of plants, its efficacy, though slower, would however, be sure in the end, for though, like lime, *not* itself *nutriment*, it possesses the chemical power of transforming other bodies into such substances.

☞The tribute to the memory of the late Hon. *John P. C. Peter*, of Montgomery County, by the Agricultural Society of that county, is as honorable to its members as well deserved by the deceased. As presiding officer of the association he was as zealous as intelligent, permitting no obstacles to impede his course in furthering the interests of husbandry. When such a man falls, it is meet to do homage to his virtues, as homage won thus nobly, in promoting the first art of peace, is the trophy which patriotism concedes to moral worth.

OPINION OF A SOUTHERN SUBSCRIBER.—A distinguished gentleman in the South, who has been for some time a subscriber to our journal, recently sent us some *additional names*, accompanied by the following remarks:

"Your monthly programme of "*Work on the Farm*," cannot be too highly appreciated. Persevere in the plan you have adopted. You cannot repeat too often, nor be too minute in telling the farmer and husbandman what he *ought to do every month* in the year; and what he must do, if he hopes to realize the value of his toil and labor.

"I wish every tiller of the land would *take, read, and follow the good advice found in your valuable agricultural paper:*—how amazingly would be the improvement of his farm, and comfort of his home!"

The above favorable appreciation of our labors is the more gratifying to us, as it proceeds from a gentleman who is as distinguished in the walks of private life for all those virtues which give elevation to human character, as he has proved himself skilful, daring, and intrepid in the battle field—from one, who, whether leading columns amidst the din of arms, or pursuing the peaceful avocations of the husbandman, is ever sure of success.

RYE-GRASS CULTURE.

A friend in Baltimore County having inquired of of us as to the culture of Rye-grass, and supposing that others may need the information, we will briefly state—1. that it will grow in any ground in which clover will grow well—2. that the ground should be well and deeply ploughed, and thoroughly pulverized by rolling and harrowing—3. that it requires 1 bushel of seed to the acre, which should be moistened on a barn-floor, and mixed with plaster or ashes, so as to thoroughly separate the seed, and render it easy of being sown—4. that 12 lbs. of clover seed, per acre, should be sown, separately on the ground at the time of sowing the Rye-grass seed; when the two kinds of seed should be harrowed in, and the ground rolled—5. that the time of sowing is as soon in the spring as the frost may be out of the ground—6. that where the seed may be sown *late*, about three pecks of oats to the acre should be sown with them as a protection to the plants from the heat of the sun.

7. Rye-grass makes an excellent hay, is an *early* pasture grass, will last for seven years, may be cut in fertile soil, or where it is top-dressed, at least three times in a season, and is alike relished by all kinds of stock. The kind of seed known as the *Pusey Perennial Rye-grass* is the best,—and as there is a good deal of indifferent seed sold under the name of Rye-grass seed, care must be observed in its purchase. 8.—It should not be cut or depastured the first season.

MANURE FOR GRAPE VINES.—5 parts wood-mould, 2 parts ashes, and 1 part ground-bones, or horn-shavings. Mix the whole well together, let the mixture remain three weeks in pie, then shovel it over, when it will be fit for use, and should be dug in, say one peck around the roots of each grape vine, taking care in spading it in, *not* to go deep enough to injure the roots.

We have also found a compost in the proportion of 1 part blood, mould 6 parts, and ashes 1 part, to answer admirably—of this mixture we gave the same quantity to each root. Soap suds is excellent to water grape vines with.

SEA ISLAND.—We present our acknowledgements to our correspondent from South Carolina, under this signature for his description of the way the planters *accumulate manure* in his State. We have for years been trying to indoctrinate our readers into the *faith*, that every farmer and planter who may work 200 acres of land, should devote the services of one man and a team to the collection of materials to compost into manure, and we are truly gratified to learn from our esteemed correspondent, that there are those who not only *believe* but practice what we have been preaching. That all may profit by their example shall be our ardent wish.

"*A Montgomery County Farmer*" is commended to our readers—his facts upon the subject of wheat turning to chess will stagger the faith of transmutation believers. His plan of a *Rat-proof Corn house*, though not covering all the wants of "*A Subscriber*," will be gratefully received by him, and, in anticipation, we tender his thanks to our correspondent.

[The communication was received after our last paper was put to press—since which, we have received another from the same source which we also take pleasure in presenting to our readers. Our correspondent is one of the best farmers in Maryland, and we regret he has not thought proper to affix his signature to his papers. The compliment he pays to our journal in the annexed note, is highly gratifying to us, knowing as we do the sincerity of the opinion expressed, as we know him too well to doubt the fact, of his speaking what his heart and mind dictates, for he is one of that class of men who would not "flatter Neptune for his trident." He remarks:

"I welcome the American Farmer at each returning period of publication, with a feeling of more interest than any, and all my other papers.

"Independent of its intrinsic worth, I feel as a Marylander, much interest in its success; and a degree of *State pride*—a pardonable kind of pride I hope—that its influence and character, is felt and justly appreciated far and wide."

A BENEFICENT KING—THE IMPROVEMENT OF AGRICULTURE.—*Frederick the Great*, the King of Prussia, laid out annually £300,000 sterling, in the encouragement of agricultural improvements, which he considered "as manure spread upon the ground, to secure abundant harvests." By these munificent gifts he increased the agricultural resources of his kingdom, elevated the moral standard of its agriculturists, increased its revenues, and entitled himself to be esteemed as a benefactor of his people.

General *Washington*, while President, used every exertion to induce Congress to do something substantial for the benefit of *Agriculture*, but in vain; for although it is emphatically *the* interest of the country—*the art* upon which all other arts and interests are based—although it feeds and clothes all, and is, in fact, the foundation of our national greatness and individual prosperity—even to this day it is the most neglected of all other interests! *Farmers* and *Planters*, look to this, you have the means of correcting the evil in your own hands, and the fault will be with yourselves if you do not apply them.

THE FARMER'S CABINET.

We find in the March number of this well conducted journal the following notice:

"The Editor of the *Farmer's Cabinet* will relinquish its publication at the close of the current volume in the seventh month next. He will dispose of the concern upon any terms that may be advantageous to any one who may incline to continue it."

We shall regret to part with our old friend Tatum; his excellent periodical has always been a welcome and instructive visitor to us, and, we feel assured, will be missed by its patrons, who cannot have failed to perceive the ability with which it has been conducted.

☞ MECHANICS' FAIR.—We would call attention to the advertisement of the Fair to be held in this city during the present month. We have no doubt the display will be one of much interest, to all classes of the community, and worthy of a visit from those who take an interest in the progress of the Mechanic arts.

☞ The compliment from the Agricultural Society of Montgomery county to that of "*Charles*," is among the pleasant occurrences of life, and we desire this feeling of brotherhood to become contagious among farmers as love is with the young.

THE CARROT.

We have often spoken of the value of this root for milch cows, and will now say a few words upon it in connection with it as food for horses.

As the *Carrot* is well relished by horses—is especially adapted to their use when a change of diet may be rendered necessary in consequence of their suffering from colds, febrile, or cutaneous diseases, when a mild cooling, aperient, diuretic food may be demanded as an alterative—as the carrot besides possessing all these qualities, is healthful, strengthening, and nutritious, possesses the property of loosening the skin when it may be hide-bound, promotes the shedding of the hair, and renders it soft and silky, therefore, every farmer who takes pride in the comfort, appearance, and health of his horses, should put in at least an acre of carrots in order that he may be in a position to meet any contingency that may occur.

A horse fed upon half a bushel of carrots, washed well, cut into small pieces, and mixed with bran and cut straw, with the usual allowance of hay, will keep in good condition, and perform as much *slow work* as when fed upon grain.

A crop for winter use may be put in any time between the 1st of May, and 1st of June. The *soil* best adapted to their culture is a deep fertile sandy loam —the *manure* should be well rotted—the *ploughing* should be deep—the *pulverization* thorough—the *best kind of Carrots* is the *Altringham*. For further particulars see our March number.

Coke.—This substance—the residuum of Bituminous coal after it has been heated in the manufacture of gas, we are of opinion, would prove, on trial, to be valuable as a manure. On exposure to the air it crumbles into powder, in which state it could very readily be sown. 20 bushels would be sufficient for an acre, and we believe it would be an excellent top-dressing for wheat or any of the family of the Cerealia. We have never experimented with it, nor have we any facts as to the results of others who have tried it. Indeed, we have never heard of its being so used; but still we have faith, from the carbon and sulphur it contains, that it would prove to be a good manure, and should like to see some enterprising farmer try it. One reason for our faith in its utility, is this,—we have, with decided benefit, used what is termed *gas cinders*, on a stiff clay.

MANURE MADE ON A RENTED FARM.—A late decision of Baltimore County Court, has settled the question as to the proprietorship of the manure made on a rented farm. The law, as expounded by Judge Archer, is, that a tenant, on leaving a rented farm, can neither remove nor sell any manure made on the premises, during his occupancy thereof, as it attaches to the freehold and belongs to the landlord.—This has always been the law, a law founded in justice and reason, and we hope the late decision will put the question to rest.

MANURE FOR FRUIT TREES.

The Horticulturist has this paragraph:

"All fruit trees are much benefitted by the phosphate of lime, (i. e. bone dust,) but the *Pear* especially. When bone dust cannot be had, bones themselves may be dug in about the roots, and allowed to decompose gradually. Four-fifths of all the bones from the kitchen are thrown away in the country. If these were saved, and put at the bottom of the holes, when planting pear trees, they would furnish a most enduring supply of phosphates to the roots."

It is hardly accurate to say that "phosphate of lime" is bone-dust. Bone-dust contains in every hundred parts, about 56 per cent of mineral substances, the rest being cartilageous and other destructible matter; of the mineral portion of bones, about 50 per cent. consists of the phosphate of lime, about 24 per cent. of which may be assumed as phosphoric acid, and the rest lime, magnesia, &c. We mention these relative proportions, to demonstrate the incorrectness of the *phrase* which would render bone-dust and the phosphate of lime *indenticul*, when, in fact, the latter is only a constituent element of the former.

We have no doubt that bones are a most excellent manure for such purposes, as the phosphate of lime, magnesia and animal matter which they contain are highly essential to most trees. We apprehend however, that it would be better to *combine* them in compost, than to apply them *alone*, as fruit trees, like other vegetable productions, require to be fed upon *many* THINGS, *variety* being indispensible to promote their healthful growth, and luxuriant productions. While upon this subject it may not be amiss to remark, that mould and leaves from the woods, marsh mud, the scrapings of ditches, and kindred substances, together with ashes, would form in conjunction with the bone-dust, most admirable ingredients for a compost for fruit trees, not omitting to put a few bushels of salt into the general mass. Such composts would be the better of being shovelled over occasionally, and kept for a month or two before being used.

As there may be places where bone-dust cannot be obtained, we will remark, that *Oyster shell lime* contains upwards of 1 per cent of the phosphate of lime, and might be used instead of bone-dust.

Peat and *Swamp muck*, contains from 1 to 3 per cent of the phosphate of lime, and would, therefore prove highly valuable in any compost intended as manure for fruit trees. Where peat may be used, it should be mixed either with lime, fish, or fresh manure, to bring on fermentation, and promote decomposition.

Those who may have Peat on their estates, and possess also, a fishery, need never be at a loss for manure, as by mixing 1 ton of *fish* with 20 tons of *peat*, they may convert the whole into a highly nutritious body of manure in six weeks, or two months—such a mixture would be excellent manure for fruit trees, as also for most other crops. It should however be shovelled over twice or thrice while undergoing the process of decomposition, and have a

bushel of plaster mixed with every twenty double horse cart loads of it.

Sea weeds, peat and *fish* would also make an excellent compost.

For sandy land, 10 loads of clay, 20 loads of peat, and 25 bushels of lime, would comprise an admirable mixture.

CURING CLOVER HAY.

In some parts of England, clover, as cut, is tied into small bundles and cured. If the weather proves fair, it may be safely stacked in five or six days. The color of the hay is said to be beautifully green, the leaves preserved from falling off, and the smell most fragrant. If this plan of curing clover hay succeeds well in England, and it is so stated, it would succeed much better in our climate, with our drier air and more genial sun.

TO TRAVELLERS.

Our *farming* and *planting* friends, who may pass through Albany, New York, the present season, must not forget that that staunch old farmer and enlightened Agricultural writer, *Caleb D. Bement*, is the *host* of one of the best *Hostelries* to be found in that city—that although he does the honors of his house in town with the true dignity of a gentleman, his rural occupation at the *Three Hills farm*, go on with that system and accuracy which gave to its fine stock and nicely cultivated fields so much celebrity in years past, when its enlightened owner resided there, and gave to its culture his individual attention—for though not there in *person*, as was his wont, at all times, to project and direct its multifarious operations, his *spirit* and his *heart* still hover around the home of his early love, and infuse their emotions of chastened ambition and generous emulation into those through whose agency he now conducts his agricultural pursuits.

A CHEAP PAINT.

As this is the season of the year when the good house-wife delights in furbishing up the homestead and making it and all its appendages look almost as good as new, we republish the following receipt for making a cheap paint. It is by Col. *Boyle*, of Annapolis, a gentleman, who, notwithstanding the incessant claims upon his *time* in his legal profession, still devotes a portion of it to rural occupations, and has, in times past, very acceptably occupied our pages, much to the edification and delight of our readers:

To MAKE PAINT.—Having been so frequently applied to for the following receipt, until it has become troublesome to give copies of it, I request you to publish it. JAMES BOYLE.

To make PAINT without white lead and oil:
2 quarts skimmed milk,
2 ounces fresh slacked lime,
5 pounds whiting.

Put the lime into a stoneware vessel, pour upon it a sufficient quantity of milk, to make a mixture, resembling cream, the remainder of the milk is then to be added; and lastly, the whiting is to be crumbled, and spread on the surface of the fluid, in which it gradually sinks. At this period it must be well stirred in, or ground as you would other paint and it is fit for use. There may be added any coloring matter that suits the fancy.

It is to be applied in the same manner as other paint, and in a few hours will become perfectly dry. Another coat may then be added, and so on, until the work is completed. This paint is of great tenacity, and possesses a slight elasticity, which enables it to bear rubbing even with a coarse woolen cloth, without being in the least degree injured.—It has little or no smell even when wet, and when dry is perfectly inodorous. It is not subject to be blackened by sulphureous or animal vapours, and is not injurious to health. All which qualities give it a decided advantage over white lead.

The quantity above mentioned is sufficient for covering 27 square yards with one coat.—*Annapolis Repub.*

VALUABLE AGRICULTURAL FACTS.

"*Arthur Young* states in the "*Papers of Bath and West of England Society*," that from a stock of 6 horses, 4 cows, and 9 lean hogs, which consumed 16 loads of hay, with 29 loads of straw for litter, besides the usual quantity of oats for working cattle, the quantity of manure obtained was 118 loads, each of 36 bushels:—while 45 oxen, littered while fattening with 20 wagon loads of *stubble*, are said to have produced 600 tons of rotten dung."

With these facts before his eyes, no farmer need despair of being able to procure an abundant supply of manure for all his row-culture purposes—let him emulate the examples of the English farmers, and litter his stock with the stubbles pared from his grain fields which may not be in clover—let him sow clover on all his wheat, and haul leaves, weeds, muck and peat, if he has any, into his barn and cow-yards, to be converted into rich fertilizers, and he cannot fail to bring his lands into good condition; but to make assurance doubly sure, let him, each year, lime a given number of acres, until he shall have gone over all his land in culture. To make these labors easy of accomplishment, it will only be necessary for him to impress this truth indelibly upon his mind—☞ *That a man might as well attempt to go to house-keeping without furniture, as to attempt to farm successfully without manure.* In the first case, he would find himself destitute of all those appliances, conveniences, and sources of comfort, which are required to make home attractive—and in the latter, the result of his year's toils would convince him, that, without abundance of manure, "the culture of plants will not repay the labor bestowed on them." There is no problem in Euclid more susceptible of proof than this—*Every plant that grows must be fed,*—and, therefore, he that follows the business of farming, who does not act upon the principle, that the accumulation of manure is *the business* of his calling, will find, to his sorrow, that before he can calculate upon success, he must make *that* the first article in his faith.

SHIPMENT OF BREAD-STUFFS.

DUTY ON TOBACCO.

Shipped from New York, during first week in February:

	In 1847.	In 1848.
Flour, bbls.	124,773	12,563
Wheat, bushels	129,841	2,409
Corn, bushels	739,075	135,524
Rye, bushels	48,170	none.
Barley, bushels	28,552	500
Oats, bushels	10,460	450

The above statement of the exports from the city of New York, although it embraces but six articles of agricultural productions, shows a startling falling off in the exportation of the same articles from that port between what they were in the first week of the corresponding months of the last and present years, and displays a very serious balance against the present. This, to be sure, is only the statement of a single port, but it may be very fairly assumed as an index of the exports of the country,—and hence, we are bound to deduce from these premises, that the aggregate for the present year, of the foreign demand for our surplus produce, will be correspondingly low, when compared with that of the last. If this conclusion be correct, it follows as a natural corollary, that prices must be very materially affected, as demand and supply always regulate values.

Should the present popular movement in France be able to maintain, as we trust it will, a well regulated Republican form of government, an alteration there may be expected of the present monopoly in regard to Tobacco, and if so, the best effects may result to the interests of the American tobacco planters, as its consumption there may be expected to be greatly increased by the removal of those restrictions which have hitherto ruled in that country—restrictions which looked to kingly aggrandizement, without regard to public interest. And while upon this branch of the subject, it may not be inopportune to remark, that the British duty, 1,000 per cent., is exhorbitantly high, and that every effort, compatible with the peaceful relations between our government and England, should be made to bring about a reduction, as the enormous duty now exacted, not only serves to deprive our planters of a large portion of the value of the commodity, but to curtail its consumption. As things now stand, under the present rate of English duty, the government there pocket much which should, and would, under a more rightful adjustment, enure to the producers here.

How to Obtain a New Variety of Potatoes.—The Ogdensburg Republican says:—"When the vines are done growing, and turning brown, the seed is ripe; then take the balls and string them with a large needle and strong thread, hang them in a dry place, where they will gradually dry and mature without injury from frost. In the month of April, soak the ball for several hours in water, then squeeze them, to separate seed from the pulp. When washed and dried they are fit for sowing in rows in a bed well prepared in the garden. They must be attended to like other vegetables, and when about two inches high they may be transplanted into rows. As they increase in size they should be hilled. In the autumn many of them will be of the size of a walnut, from that to a pea. In the following spring they should be planted in hills, placing the large ones together. They will in the second year, attain their full size, exhibiting several varieties of form, and may then be selected to suit the judgment of the cultivator."

MIMOSA SEED.

Since our last, we have received the following note from Mrs. Thomas, with a small package of this seed, which we will be happy to distribute to those of our friends who were disappointed in receiving any of the first lot.

"Seeing in the No. of the *American Farmer* for April, a request from a Virginian, and a subscriber to the work, I now send all I have left which you can send to him for his benefit and his neighbors—I have now supplied nearly half the States of the Union—which gives me pleasure to benefit mankind in any way.

Now for the mode of culture, as I presume the gentleman is unacquainted with it:

The Mimosa seed is to be placed in a bowl over night and very hot water poured over them, there to remain until morning; those seed that are swollen to be planted in a drill, in light, rich earth; the remaining seeds to be treated in the same manner, the second night, and planted as above—when up to be wed by hand, as the roots, except the tap root, run nearly parallel with the surface; a hoe must not be used on any account—plant as soon as received. The foliage is very beautiful, much like the yew, but of a more delicate texture—they will flower in four years if well cultivated, in June, continue a month, will flower the second time partially—tree about the size of a good peach—is subject to no kind of insect; the leaves close in the evening—when one year old to be planted where they are to remain –to be tied to stakes to prevent them from turning to the earth, like unto the Banyan tree. My tree is fourteen years old this spring. from the seed, and very flourishing--the seed is sent to you for the gentleman applying. I could supply the gentleman with probably four young trees if I could find a safe conveyance."

The following table has been carefully revised by a scientific gentleman, and handed us for publication in the American Farmer:

A Valuable Table.—The following table, compiled from the calculations of J. M. Garnett, Esq., of Va. will be found exceedingly valuable to many of our mechanical readers:

A box 24 inches by 16 inches square and 28 inches deep, will contain a barrel, (5 bushels) or 10,752 cubic inches.

A box 24 inches by 16 inches square and 14 inches deep, will contain half a barrel, or 5376 cubic inches.

A box 16 inches by 16.8 inches square and 8 inches deep, will contain one bushel, or 2,150.4 cubic inches.

A box 12 inches by 11.2 inches square and 8 inches deep, will contain half a bushel, or 1,075.2 cubic inches.

A box 8 inches by 8.4 inches square and 8 inches deep, will contain one peck or 537.6 cubic inches.

A box 8 inches by 8 inches square and 4.2 inches deep, will contain one gallon, or 268.8 cubic inches.

A box 7 inches by 4 inches square, and 4.8 inches deep, will contain a half a gallon, or 134 4 cubic inches.

A box 4 inches by 4 inches square, and 4.2 inches deep, will contain one quart or 67.2 cubic inches.

A Resource for Manure.—We recollect many years since, to have been present where a farmer was cutting a field of Rye, which at the time we did not believe would yield him 2 bushels to the acre, and as his shores were periodically lined with sea-weed, and he had a pine-forest of many hundred acres in extent, we expressed our surprise, that he would continue to exhaust the strength of his hands and beasts of burthen in such fruitless and unrequited toils, when the means of enriching his soil were so close at hand. His reply was, that he had only a scanty supply of manure for his *corn* and *truck* crops. We endeavored to convince him that in his pine woods, and on his shores, he had ample supplies of fertilizing manures, but our counsels we fear fell still-born on his unwilling ears, as during the summer of 1846, in passing by his farm, we saw the same cheerless evidence of neglect.

Of *sea-weeds*, though transient in their effects, lasting only for one or two crops, there can be no donbt of their good effects when applied fresh to the soil, or made into compost, and ploughed in as spread. In this country, they have been used with the best results, and in Europe they are always availed of as a sure means of fertilization. On the coasts of Scotland and England, much land, which had been previously of little value, have been brought up by their use to a condition of great fertility; so much so that the rents have been advanced from a few shillings to several guineas an acre. Sea-weeds contain fully one-eighth of their entire body of gelatinous matter susceptible of decomposition and consequently of yielding food to plants Besides which they also contain sea salt, soda, carbonaceous matter, carbonic acid, &c.,—all of which substances are known, as well from practice, as from theory, to form the vegetable and mineral food of most of the crops cultivated.

Of the utility as a manure of the *leaves of the pine*—or *pine-shatters*, as they are some times called—no one will doubt who may be acquainted with the fact, that in every one hundred parts, their ashes contain 12. 27 phosphates, 43.5 carbonates, or upwards of 55 per cent. of matter known to enter into the constituent elements of almost all plants. Then why should any one hesitate for a moment, who may have a pine woods at command, to avail of a resource at once so important in the fertilization of his soil?

Pine leaves, or shatters, can be used in several ways. 1. As a top-dressing to wheat or grass. 2. They can be mixed in equal portions with the barn-yard manure. 3. It is a good practice to spread them over the cow-yard in fall. There they act as bedding for the cattle, absord their liquid voidings, and are thus prepared for earlier decomposition than when used fresh from the woods. 4. They may be used as one of the constituents of a compost with lime, mould, peat, marsh mud, &c. Be they used, however, in either the one way or the other, their phosphates and carbon will *tell* in the melioration of the soil, in the improved quality and increased product of whatsoever crop may be grown upon lands manured with them, and in the improved condition of the pecuniary interest of any farmer who may have the industry and enterprise to use them.

Artificial Guano.—We are unable to speak with any certainty as to the virtues of the "*artificial Guano*," which forms the subject of inquiry of a correspondent from St. Mary's County. We had seen the notices of it comprised in the envelope sent us, and have from time to time read other accounts of it, but have no personal knowledge whatsoever of it, nor have we seen any facts coming from reliable sources as to any results of experiments made with it Such being the case, we can express no opinion as to the true character of the "*artificial guano*" in question. But it may not be inopportune to the occasion, to say, that with the knowledge of the constituent elements of the *genuine* guano, as afforded by *analysis*, it is perfectly practicable for any good chemist to *compound* a guano, which would be equally effective in furnishing to the soil those substances which have proved so efficient in promoting the growth of crops in the genuine article—and we have that much confidence in those, *who really are good chemists*, as to believe that there are but few among that enlightened fraternity who would compromise their honor and integrity by manipulating a worthless article—if there are any such, they must be unworthy members of the beautiful science of chemistry, and, on detection, should be read out of the church—for any man who would defraud an agriculturist, in a matter upon which the success of his crop may depend, should be considered the antipodes of all that is ennobling in humanity. The world, however is full of cheats and empirics—full of a description of persons who look upon the public as a *big fiddle* upon which the unprincipled have a right to play—and it, therefore, becomes the tillers of the earth to be guarded in their purchase of new fangled manures, no matter however imposing their claims to confidence may be presented, as there are but two ways by which the value of any can be determined—the one is, *by actual trial*, the other, *by analysis*. In the absence of these unerring tests, prudence would dictate that experiments should be conducted upon limited scales, as, to use a common saying, bought wit is best where it don't cost too much.

In conclusion, we will remark, that we would be inclined to look with a more favorable eye upon this "artificial guano," if the advertiser had not attempted to build up its virtues by depreciating those which belong to the genuine article.

An Agricultural Fact.—You may set it down as an indisputable fact, that *wet stiff clays*, if thoroughly *drained* of their superfluous water, would in many instances be converted into friable moulds, and yield ¼ more grain than they do now—therefore, you may make your calculation whether it be to your interest, or not, to incur the expense of draining any fields of the kind you may have. But this positive *increase of yield*, will not be the only benefit you will derive; such lands will require less manure, less working, and your winter grain will not be half so liable to die out, or be spewed up by the alternations of the weather, while the grain grown on them will be of an infinitely better quality. It is your interest, therefore, to drain all such lands that you may have under cultivation.

☞We are gratified to learn that Dr. *James S. Owens*, of Anne Arundel county, has consented to deliver the annual address before the "Prince Geo's Agricultural Society," at its next meeting. Dr. O. is a pleasant speaker, and from his knowledge of the wants and character of the farmer, as well as practical experience as an agriculturist, cannot fail to produce an address which will rank with those delivered before this society on former occasions.—*Marlboro' Gazette.*

The frost on the nights of the 19th and 20th April, has not done as much injury to the fruit it is thought, as was first feared.

HORTICULTURAL.

WORK IN THE GARDEN.

Cabbages.—As we trust every farmer and planter has been provident enough to have supplied himself with a good stock of cabbage plants, we would recommend him to go to work at once, manure one of the beds of his garden well with strong manure, have it dug in well, the ground thoroughly raked as the spadesman proceeds with his work, and then to seize the occasion of the first rain to set the plants out. By following this advice he will secure an early supply of collards and loafed cabbages for his family through the summer and fall, and thereby contribute largely to the comforts of the table. In setting plants out we have found great advantage in making a puddle of mould, flour of sulphur, and soot, of the consistence of cream. In this we dipt the roots and stems of the plants up to their junction with the leaves. This puddle prevents the plants from being destroyed by the cut and wire worm, and secures them a vigorous growth from the very onset, and as these are objects worthy of being secured we commend the practice to all.

Sowing Cabbage Seed for Winter supply.—Early this month sow seeds of various kinds, not omitting the *Savoy*, to furnish a supply of plants to set out for winter cabbage.

Beets.—Your beets for winter use should now be put in. The best manure to use for these would be a compost comprised of 7 parts well-rotted stable dung and 1 part ashes. The dose of manure should be a liberal one, it should be evenly spread over the surface; that done, let the plot of ground be dug up full a spade's depth, the spadesman taking small slices at a time and taking care to pulverize the soil well and rake as he proceeds on with his work.—Draw drills then a foot apart, inch deep, drill the seed in thinly and cover with the rake.

Parsnips and Carrots.—Now is the time to put in these fine roots—for directions see our last month's number.

Radishes.—Sow the seed of these at intervals of two weeks during the month, and thus secure a continuous supply.

Lettuce.—Plant out your plants to loaf, and sow seed, in order that you may have a successive supply.

Peas.—You may sow a small bed of these to succeed your early ones.

Beans.—Prepare a bed and drill in beans—the earlier the better.

Melons of all kinds should now be planted in the open ground. Prepare a well exposed bed by manuring it well, then dig it up, rake, and lay it off into 6 feet squares. At the junction of each square put a spade of compost formed of 7 parts rotten dung and 1 part ashes, over this form a hill and plant your seed, 8 or 9 seed in each hill. When the plants come up sprinkle a mixture of equal parts of Plaster and Soot over them, each morning, while the dew is on them, until the plants get big enough to thin out, then draw all the plants but three; keep these clean of weeds, the earth well stirred, and increase the size of the hills if necessary. When the runners are a few inches long pinch off the top so as to encourage fruiting. In dry weather water freely.

Squashes should now be put in and treated as melons.

Sweet Potatoes.—If you have a square of good sandy loam, lying well to the South in your garden, plant it in sweet potatoes.

Roasting Ears.—Plant a square in Early corn for roasting ears—not forgetting to manure and dig the ground well, and put a mixture of ashes and plaster in the hills—say a gill in each hill.

Cauliflowers.—Set out your cauliflower plants for early use, and sow seed to raise plants for late use.

Borecole.—Sow the seed of this vegetable for autumn and winter use.

Brussels' Sprouts.—You may sow the seed of these excellent sprouts. For the preparation of preparing the ground, see our instructions in March number.

Broccoli.—If you have plants ready set them out in a bed well manured, dug and pulverized 2½ feet a part.

If you have no plants, sow some seed and thus lay the groundwork for a late crop.

Lima Beans.—Plant a bed of these early this month, and thus secure your family a supply of this richest and most luscious of the bean family.

Small Salading of all kinds should be sown now.

Spinach.—If you have not done so already, select a bed, cool and moist, and sow some seed.

Celery.—If you have Celery plants ready, set them out, if you have none sown, sow some the first week in this month, in order that you may secure to your family a supply of this healthful, palatable, and, we may add, fashionable vegetable, for no dinner table is considered perfect without it.

Early Turnips.—If you have not done so already, proceed at once to prepare and sow a bed of turnips for early use. For the method see our advice in our March number—a bed 20 feet square will give you an abundant supply for family use.

Asparagus Beds.—Keep these clean of weeds.

Onions.—These should be kept clean of weeds.

Salsify.—Sow a plot of this excellent root.

Egg Plants.—If you neglected last month to sow the seeds of this fine vegetable, do so the first week in this month. For the purpose select a border well exposed to the sun; manure it freely, dig and pulverize well, scatter the seed thinly, rake them in and finish by patting the bed over with the back of your spade. Sliced and fried this vegetable is among the most palatable that ever graced the dinner table.

Endive.—Prepare a bed, procure some of the white and green curled Endive seed and sow them. When

the plants are about 3 inches high set them out 10 inches apart, being careful to do so after a rain.

Okra.—This seed, for a fall crop, should be sown the first ten days of this month. The green capsules of this vegetable is a most delicious and glutinous addition to soups, while its seed when ripe make an admirable substitute for coffee. Sow the seeds in drills, 4 feet asunder, drop the seeds 8 inches apart, 2 seeds in a place. The drills must be 1 inch deep. As the plants advance and become large enough thin out to 1 plant, draw the earth up to the plant, and repeat the work two or three times as you would hoe peas.

Red Peppers.—Select a place on a warm border and sow seed.

Tomatoes.—The seeds of this delicious vegetable may still be sown up to the 15th of the month.—Whatever else you may neglect, don't neglect this; for, of a truth, they are among the best and most relishable vegetables that grow, and are withal among the most healthful. They are good raw, cut up, with vinegar, pepper and salt—they are good stewed with bread, or with bread and onions—they are good fried in butter or lard—they are good broiled and buttered, peppered and salted—they are good in soups—they make excellent pickles—and deservedly rank among the most exquisite of all preserves.

Raspberries.—New plantations of raspberries may be made the *first week* in this month, but care should be taken to water the roots whenever the earth becomes dry.

Strawberry Beds.—Keep these clear of weeds, and water the beds while the fruit is maturing, taking care to hold the nozzel of the watering pot near the ground so as not to injure the bloom.

Sowing Annual Flower Seed.—The seeds of all annual flowers should be sown the first week in this month, if not done before.

Nasturtiums.—Seed of this may still be sown up to the 10th of this month.

Pot Herbs—Medicinal Herbs.—If ommitted being sown last month may be sown the first week in this—it is, however, necessary to be careful in watering the beds.

Thinning Fruit.—If the fruit on your apricot, peach and plum trees are thickly set, thin them out.

Weeds.—Extirpate all, and let it be your pride to have the cleanest and best cultivated garden in your neighborhood—such ambition is ennobling.

With these brief hints we shall close our month's conversation, resting under the firm conviction that our advice will be taken, as those to whom we address ourselves, we feel assured, possess the moral power, as they do the will, to make their gardens at once the sources of comfort and of pleasure.

EFFECT OF SUBSOILING.—We perceive by a letter from *George Seaborn*, Esquire, of Pendleton, S. C. published in the Southern Cultivator, that he made an experiment last year, to test the utility of subsoiling corn land—the result was, that the ground *subsoiled* produced 26 per cent. more than that which was simply ploughed.

SHELL MOULD.

CURING OF FIGS.

To the Editor of the American Farmer.

DEAR SIR:—I send you a sample of Shell Mould, which I would like you to inform me the best way to apply to the land, and the quantity. We have a great quantity on this shore, and the farmers have got a notion it is good for nothing. I have applied it in different ways—I have broadcasted it and it has frenched the corn, as we call it, or burnt it. Last season I applied it in the hill, as we do other manure, and I made a barrel of corn to the thousand more than the land alongside of it. I put some broadcast and it injured the corn, but the oats were very heavy; it filled the wheat with so much sap that it is very apt to rust and blow down. It seems to affect the roots of both wheat and corn.

Yours respectfully,
A SUBSCRIBER.

Kent County, Md.

N. B.—I should be glad to get information how to put up figs, if it can be done in this climate as we get them in *drums*, having a good quantity of fig bushes.

SHELL MOULD.—We have examined the sample of oyster shell mould sent us from Kent county.—Judging from its appearance we should say that it contains 60 per cent. of the carbonate of lime, besides considerable animal matter, and, as is always the case in such bodies, several phosphates, making, in the aggregate, a valuable manure. With regard to the *quantity* to be applied per acre, we would say, that that must be regulated by the condition of the land. If to be applied to lands of strong texture, well filled with vegetable matter, *two hundred* bushels may with safety be applied. To *thin land*, one-half of the quantity would be enough for an acre.—The best mode of applying it would be to *broadcast* it, as without it be so applied the improvement would be partial. Our correspondent says, that he used it *broadcast*, and it "*frenched* or burned" his corn—that he applied it in the *hill*, and it increased the yield of his corn 1 barrel to the thousand hills. The very facts which he states, go to deprive the conclusion to which he arrived of all force, as it is impossible, if the mould possessed the power of firing the corn-plant, that the topical application in the *hill* would have proved harmless, while its broadcast application resulted injuriously. Applied in the hill, the mould came in direct contact with the tender fibres and roots, and if it were capable of burning, would entirely have *destroyed* the plants, instead of increasing the yield as stated. We used precisely similar mould many years ago, and found very excellent effects from it, and we are surprised to learn by our correspondent's letter that the farmers in his section of country have "*got a notion it is good for nothing*"—all we can say, is, they never entertained a more groundless belief in their lives. And we here say, that wherever lime would be useful, so would this mould, as besides the animalized earth, it contains the carbonate of lime and several phosphates, all substances of infinite value. It may be that our correspondent put an *over dose* on the land he broadcasted; if that be the case, it will account for the effect he speaks of.

There is nothing in our friend's shell mould that could by any possible chemical, or mechanical action, fill the wheat with sap, occasion it to rust or blow down—on the contrary it has that in it which would prevent each of these effects, except the "rust,"

and that, we feel very certain *is* referrible to atmospheric influences, and *not* to any constituent element of the shell-mould.

Unless too much of the mould was applied it could not possibly affect the roots of either corn, or wheat, or anything else that belongs to the vegetable family.

FIGS.—With regard to our correspondent's inquiry as to the method of putting up figs, we can only state what we understand to be the process of preparing them in Turkey. It is this:

As the figs begin to ripen, they are punctured with the point of a needle and smeared slightly with sweet oil. This accelerates their ripening. When ripe, they are carefully picked from the trees, placed in vessels full of holes, and immersed in boiling ley, after which they are dried in the sun and packed in drums, pressure being used to render them compact.

A *colander* would answer instead of a more costly seive.

SAVING CLOVER SEED.

MONTGOMERY COUNTY, April 6, 1848.

To the Editor of the American Farmer.

I notice in the present number, a request by the Editor, that some correspondent will communicate information with regard to "saving clover seed."—Should no other and more able correspondent undertake the task, the following is at the service of "A Subscriber."

For several years past, I have been in the practice of not only "saving," but cleaning or hulling my clover seed, and find my account in so doing; my plan may not be the best; and I, with many others, no doubt, will feel obliged for any suggestions by which an improvement may be made.

Some years since a machine, such as is alluded to by "A Subscriber," to "save the heads alone, and drawn by a horse," was introduced here; but whether it failed on account of some defect in the principle (such I thought was the case) or lack in management, is not now recollected; but its use was soon abandoned, from some cause.

I use the common grain cradle; the two lower fingers of which, should be covered with coarse strong linen or cotton, to prevent the heads falling through—as only about *half* the straw is cut with the heads. When half to three-fourths of the heads appear to be *dead*, and while damp with dew, it is cut so as to lay two swaths *head to head*, and in contact; this saves considerable time in raking. It remains in swath some days, and when thoroughly cured, though at the time *damp*, but not *wet*, with dew, it is carefully raked into small loose cocks. A few hours of sun-shine will dissipate the dew, when it is secured in the barn.

We thresh it with the flail, which only separates the heads from the straw, and does not, to any extent, hull the seed.

After carefully raking off the straw, the heads are passed through the Fan. The unhulled seed is blown *off as chaff*, while the ripple and seeds of weeds (which are readily threshed out by the flail) and a very small portion of clover seed, are separated, leaving the clover chaff clean—some prefer its passing through a screen into the machine, to separate the ripple, in preference to the fan; it is neither more expeditious, or so effectual in getting rid of the ripple.

The chaff or heads, are then passed three or four times in succession through a common thrashing machine, at a high speed, and *forced* in, in considerable bulk. This will hull perhaps two-thirds to three-fourths of the seed; pass it through the fan a second time, when the light chaff will be blown entirely away, and the unhulled portion fall near the fan.—The bulk is now so much reduced, that it may be passed through the machine some half a dozen times, and almost every seed will be hulled. When in this state, passing it a few times more through the fan, renders it a merchantable article.

I was previously in the practice of sending my seed to a clover mill; but found it returned to me with wild carrot and other noxious seeds; almost a necessary consequence; as most of the clover seed sent there, had more or less of these pests in it.

It is now cleaned *much better* on the farm; affording a *greater yield;* and in very little more time than is required to haul the chaff four or five miles, to the mill. Nor are these the only advantages attending the "home manufacture," for the *saving in toll*, the past season, was some seven or eight dollars; and the *increased* price received for extra clean and perfect seed, nearly or quite paid *all* expenses (other than harvesting) and also adding considerably to the "manure heap" from the chaff.

I understand a machine for hulling clover seed has recently been invented; far surpassing most, if not all others, now in use: being informed by those who recently witnessed an exhibition in this county, that it hulled, and separated from the chaff, at one operation, from *five to six* bushels of seed *to the hour*.

Like most other valuable improvements in machinery, whether for agricultural, or other purposes, the plan is very simple; merely substituting continuous *screws* cut on the spikes, in place of saw teeth, or jagged edges, as are generally used. The latter injures much of the seed; neither do they hull so fast, or so perfectly.

It is understood that the patentee intends having them extensively made in Baltimore, and will supply any demand.

Very respectfully,
A MONTGOMERY FARMER.

CULTURE OF POTATOES.

To the Editor of the American Farmer.

SIR:—I have seen an article from the pen of Mr. Owens, on planting potatoes, which resembles so nearly the plan adopted by myself last year, that I am induced to give mine in detail, if only for the purpose of confirmation.

For my share of potatoes I am indebted to the Rev. Mr. James, my neighbor, and the pastor of our church. He called upon me last spring with a request to be allowed to show me how to cultivate a patch of potatoes. I furnished him with about one and a half acres of ground; gave him manure and seed, and ploughed the ground, requiring one-half the product as my portion. He then commenced, by checking off the ground, 4 feet by 4. In the hills were dropped the seed, three in each, thus: ∴ which were then covered with earth. After this, a considerable quantity of tolerably well rendered pig-pen and barn-yard manure was dropped on each hill, which, being covered, was left until the potatoes sprouted to the length of some five or six inches, the earth was at this time hauled up until the hills were the size of a bushel basket. The yield was the best that I saw during last year.

Immediately alongside my neighbor's patch I had another, which I planted in rows (the usual way) and manured on the same day, in the same field,

with similar manure, and with seed from the same cellar, which proved nearly all diseased or hollow cored. I had still another patch in low ground, where I had planted potatoes the year previously.—These I had covered with sea-weed, so that I presumed the ground was sufficiently rich and warm to raise a good crop without manure, and I therefore omitted it. These proved to be much diseased, tho' not hollow-hearted. While we were planting the second patch above referred to, my kind neighbor gave it as his opinion that we should lose our crop. After digging, and finding that we had lost some forty or fifty bushels, he advised me to apply *hot lime, newly slacked*, in order to save the remainder. This was immediately done, and the consequence was that all which were not already decayed were saved from the rot, and since this application none have been lost.

One of my neighbors, at least half of whose crop had been similarly destroyed, and who was in consequence induced to offer the residue at 12½ cents per bushel, saved them by adopting the same plan.

Remarks and suggestions upon a subject which seems to have puzzled so many wise heads, should be offered with diffidence, and it is with this feeling I have made the forgoing communication, leaving you, Mr. Editor, to judge of its value.

RICH'D C. HOLMES,
Cape May Court House, New Jersey.

For the American Farmer.

The Horse is so valuable an animal that everything relative to his welfare should be generally known. I am not aware of having seen the following purge, I offer it in much confidence, having repeatedly witnessed its good effect.

Symptoms.—Heavy eyes, frequent lying down, rolling, turning the head to the side, supposed to be disease of the primæ, viæ: Rp. ½ lb. Sal Soda, ½ oz. Soc. Aloes dissolved in warm water: if the symptoms, increase injecting into the rectum and colon as much salt water as they will contain, have in every instance given speedy and permanent relief

D. G. W.

Tracy's Landing, A. A. county, Md.

[To our knowledge this purge has been used for 40 years—for obstructions in the intestines, a mixture of *Glauber Salts* and *Aloes* was a favorite remedy when we were a very small boy. The injection of of salt water should be milk warm.—*Ed. Am. Far.*]

Ashes.—While the learned are canvassing the chemical qualities of ashes, and their application, prudence would suggest that their place of deposit, while containing fire, should be a more secure one than is generally assigned them. Whence fires and narrow escapes would be less frequently chronicled.

D. G. W.

For the American Farmer.

Castrating.—The time attended with the least trouble and least risk, is, as soon as the testes can be firmly held in the scrotum. When the operation is performed at so early a period, simply severing the united tubes at a single cut, and leaving the balance to nature, is all that is necessary.

Many pursue the same course with large or grown animals, at the hazard of a hemorrhage—others after seizing hold of the testicle, with one jerk sever the entire cord, trusting to attenution of the arterial tube to form a clot. But a more feeling, as well as a more scientific plan is to dissect the artery from the vas-deferens, spematic vessels, and ligate it with a strong thread, you thereby are sure against secondary bleeding.

Should the wound not heal by the first intention, its appearance will indicate a suitable application in the way of a wash, ointment or powder.

D. G. W.

Tracy's Landing, A. A. county, Md.

SOOT—FARMER'S GUANO.

To the Editor of the American Farmer.

Near Elkton, April 5, 1848.

Dear Sir:—I could not find time to answer to J. W. in regard to his inquiry as to soot as a manure. I will say to him that I have used it for the past ten years on land that eleven years ago would not produce one barrel of corn per acre. Soot is valuable, mixing it with ashes and salt—say to 50 bushels ashes put 8 bushels soot and 2 bushels salt; compost it; spread this amount handsomely per acre, and you will be paid for your outlay. The ashes I use are steamboat ashes—the soot is swept from the flues, and the bay-water furnishes all the salt I wish.

I will say a few words in regard to the American Farmer's Guano. I do consider that the farmers, if they will take the trouble, can prepare a manure equal, in my opinion, to the best Peruvian Guano.—Last season I had as much manure kept under a fifty foot studding, protected from sun and rain, as covered several acres—hand picked three times with mattocks, spades and shovels during rainy days in summer—these several shiftings put it into the finest condition, so much so, that 16 two horse cart loads was all we could get to one acre of land—this was ploughed in. Alongside of the manured land was sown 400 lbs. of the best Peruvian Guano per acre, ploughed in, and at the present day the Farmer's Guano has the preference—the manured land looks superior to the Guano—both wheats sown same day.

Very Respectfully,
WM. S. BARR.

ON PLANTING POTATOES.

Winton, Queen Ann's County,
April 12th, 1848.

To the Editor of the American Farmer.

Dear Sir:—In the December No., 1847, of the American Farmer, is an article from Judge Goldsborough of Dorchester, upon transplanting Irish potatoes. As the time is now approaching, when information on the subject may be useful to others, allow me to state, that the case to which he refers is not an isolated one. Last year I tried the *same experiment* with the same success. From severe drought and an application of heating manure, not much more than half of the potatoes planted in a patch of one-fourth acre, came up. Whenever there was a season, sprouts were taken from the most luxuriant hills that stood—in some cases after they attained four or five inches in height—and transplanted in the missing hills, and without an exception I believe they all grew. The vines of the transplanted potatoes were not perhaps quite so large as the others, but at gathering time there was no perceptible difference in the size or quantity of the root. Like all, or nearly all, the potatoes planted in this county, after the 1st of April, they were much injured by the rot—the transplanted not more than the others. I derived my information from the last report from the Patent

Office, a useful document in my humble opinion, and for a more detailed account would refer others to page 471 of that report. Wishing the American Farmer a wide circulation, particularly on the Eastern Shore,

I am, very respectfully, yours, &c.

RICH'D T. EARLE.

DRAINING.

Open and Under Draining.

By J. Jones, of Delaware.

Agricultural Society of New Castle Co., Del.

Hare's Corner, Exhibition Ground,
October 15th, 1847.

To the Committee on Open and Under Draining.

Gentlemen:—Draining is a subject of great importance to the agriculturists of this State, of which no notice has hitherto been taken by this Society. There is no state in the Union, except it may be Louisiana, in which more draining has been done, or where it has been attended with greater success than in Delaware. A great portion of the Eastern, or Delaware front, of New Castle county, from Naaman's Creek to Bombay Hook, was formerly marsh, which has been reclaimed by embankments at great cost. These embankments are in some instances full twenty-four feet wide at the base, and six to eight feet high, sloping at the river side at least a foot and a half to one foot in height, and about one foot to one and a half on the land or inside; leaving the top about four feet wide. The earth from the construction of these embankments is generally taken from the outside, from ditches or pits cut perpendicular to the embankments—of length and depth, so as to afford a sufficient quantity of earth for that purpose. Great precaution must be taken when first locating these embankments, to set them sufficiently back from the river, that the growing reed may be a protection against the storms.—Where they are exposed to the beating surf, they must be protected by heavy stone walls. Sluices of masonry or wood, of a capacity to vent all back water, should be constructed previously to putting up the outside embankments; and so ought the leading drains or main open ditches.

Great precaution and care is necessary in putting down a sluice, so as to prevent it from blowing out. The sluice if made of wood, with one chamber of 3 feet wide, by 2 feet high, would be sufficiently wide to vent all surplus water from a meadow or valley of one or two hundred acres of level land, where water moves sluggishly, and if the top of the embankment is not more than eight feet high above the bottom of the meadow ditch, 26 feet will do for the length of sluice,—to construct which, two sills, side timbers or plank, sawed specially for the purpose, 2 feet wide by 4 inches thick, 26 feet long, is first to be procured. Upon which spike or tree-nail on 2 inch plank, cut 3 feet by 8 inches long, both for the bottom and top of sluice, leaving the chambers of the sluice 2 feet by 3 in the clear. The gate of sluice should be hung with an inclined plane, say about 6 inches to the foot, so as to open easy when meadow water is highest, and close when river water is strongest. The sluice, when so made, should rest on 5 good mud sills, the two outside ones should extend at least six feet beyond the width of sluice, on either side. Sheet piling should be drove down full three feet below the top of both the outside sills, and spiked fast to the said sills so as to guard against the working of muskrats, or leakage from other causes. Grating should be drove at the head or meadow side of sluice, so as to prevent logs, brush, grass, or other floating substances from getting into the sluice, and either obstructing the free passage of the water, or closing of the sluice gate against the river. If a greater volume of water is to be vented, the width or capacity of the sluice may be increased by an additional foot in height, or an increased number of chambers, which may be easily made by an additional sill or side timber of 4 inches thick or more, of the necessary height, as occasion may require, and if the embankment is higher than 8 feet, the length of sluice must be increased—so as to observe the same figure as of first described dimensions.

If sluices are constructed of solid masonry, they may be done with cut stone or good hard brick, in all cases to be laid in hydraulic cement, resting on good firm foundations of wood, well *sheet-piled*, covered with flat stone, arched with brick; chambers in no case should be higher than three feet, or wider than six feet, each, but may be increased to any desired number, so as to vent off, *quick*, all surplus water. Sluices are best when sunk well down. If submerged, they are all the better, as the greater the depth they sink, allows a greater depth of covering, and weight gives strength to this kind of structure. Good heavy stones well fastened in the wall will be necessary for sluice gates to work upon. If the water is salt, copper fastenings are best and cheapest in the end. The length of piles must be increased (as well as the extent of wing-piling) if the foundations are built on soft mud.

Previous to the construction of the Chesapeake and Delaware Canal through the St. George's meadows, it required three ranges of sluices, each capable of venting a volume of 60 feet of water, through several chambers of various dimensions. The extent of meadows and upland slopes, which was drained through these sluices, was near ten miles long, by near an average of four miles wide, or more than 20,000 acres. There were six mills of various kinds upon the streams above, but they were at all times liable to waste water, and their dams ever to break, which made it necessary to provide sufficient width of sluices to guard against all such contingencies.

Several thousand acres of prime meadow now in good condition, are being grazed with fat cattle for the shambles of Wilmington, Philadelphia and New York. Besides which many dairies for milk, butter, and cream for the ice-cream saloons of Wilmington, Philadelphia, and Baltimore. These meadows when thus improved, sell from 20 to $200 per acre, according to the quality and facility for reaching market. For grazing purposes they are particularly well adapted. I was informed by John Ball, formerly an agent of Martin Dubbs, late of Philadelphia, that they fed twenty-four bullocks on only twenty-five acres on the St. George's meadows, near Port Penn, which cattle cost $40 and sold for $90 when fat, netting near $50 clear profit to the acre. The neatest and best arranged of these marsh farms that I have seen for a long time, was Long Island, owned and occupied then by John Barney, late of Philadelphia. It was then far more beautiful and profitably cultivated than was ever that of Blannerhassett in the palmiest days of its proprietor, situated as Long Island is, at the head of the broad and beautiful bay of Delaware, where in the hottest day of summer a sea-breeze can always be enjoyed. There is much other marsh yet in its wild state on Appo-

quinimink, Blackbird and Duck Creeks, in New Castle, as well as on the creeks in the lower counties of Kent and Sussex, that might be equally well improved and profitably employed. The numerous steamboats now plying on the bay and inlets, add greatly to the advantages of marsh owners, as well as to the upland owner, as a quick, safe and cheap mode of conveying their several products to market.

In Kent and Sussex, besides some well improved river marsh meadows on the creeks leading up from the river, the Western border of the State has much flat land, that has been brought into profitable cultivation by open ditches of great extent.—This draining both in the interior and on the Delaware front of the State, is done by chartered companies. In one of these,—(the Marsh Hope, or Tappahanock, I am not sure which, companies ;)—the ditch is near twenty miles long, varying in width from six to twenty-four feet, and from two feet at the upper part to sufficient depth to vent the water. These lands when once well-drained, are equal in fertility with the lands of the great American bottom of Illinois, the *Eldorado* of the West, and are as well adapted to the growth of corn, rye, grass, &c. I was shown a field near the village of Vernon, a few weeks since, which my informant, Mr. Tharp, told me had been in corn for more than twenty years in succession without being manured, and was then supposed by some to yield fifty bushels of corn to the acre. His Excellency, Governor Tharp, informed me, that he had gathered ninety-six bushels of corn from an acre of his meadows, which is pretty much the same quality as many of those reclaimed flat lands. The draining of these lands adds much to the beauty and health of the country and neighborhood in which they lay, as well as to their wealth. Within a few years, many farmers of New Castle county, have greatly beautified and increased the value of their lands, by under-draining. Amongst the most prominent that have come under my observation and notice, are Auley Lore of Appoquinimink, W. J. Hurlock, Major Reybold, Dr. C. Noble, D. Veazey, J. L. Clayton, John Gregg and Bryan Jackson Besides these, many others of whom I have no knowledge, have also availed themselves of this mode of improving their wet lands.

The most extensive and perfect experiment that has come under my notice, and to which I wish to call your attention particularly, is that of Bryan Jackson, who has some 4 or 5000 feet of perfect miry unsightly bog beautifully reclaimed. The process which he adopted was first to open a main and open ditch through or near the centre of the low lands, designed to be reclaimed, some four or six feet wide, and two or three feet deep, or of sufficient width and depth to carry off all rain and other surplus water. Into which open or main drain all his under-drains lead. The covered drains are started at the lowest part of the land designed to be drained by this process, at the main ditch, running perpendicular thereto, and extending as far into the fast land as to head off the springs; then following up the fast land in a general direction, parallel with the main open drain, taking care to head all *springs*, carrying the bottom of the *main covered land drain* to a depth as nearly level with the bottom of the main *open drain*, as to give a gradual descent—the slower the better, so as to lead off all spring water. To lead off the water from the main covered or land drain, he has cut cross drains, from it to the open main drain, in a direction somewhat down stream, and at distances from each other sufficiently to completely drain the land. Some parts of the main covered drain on either side of the cripple, was cut full five feet deep. The drains were formed as far as I saw them, by three boards, one of which was laid flat on the bottom; the other two, after being cut so as to fit, are placed on their edges and brought together at the top, forming a triangular drain. The top boards of the lowest part of these drains, were near two feet below the surface.

The whole of this work appears to have been done very similar to the plan laid down in Steven's Book of the Farm, as now being republished in Skinner's Farmer's Library. By this mode of improvement in a few short months, an unsightly, and otherwise useless and unhealthy bog is reclaimed, the land cleared off and ploughed, and now the wheat is growing most luxuriantly. Recently, hollow tiles for under drains have been used by some, and they bid fair to come into general use. They are about twelve or thirteen inches long. They are made in Cecil county, on the farm of David Taylor, who is a neighbor of mine, and lives on the Maryland side of Mason and Dixon's line, has several thousand feet of drain made with those tiles. Tiles for the purpose of draining are made in Wilmington, I think by W. Lovel. The cost of under-draining sunk sufficiently below the reach of the plough, say eighteen inches, costs 25 cts. per rod, exclusive of materials, whether of tile or plank.

From all that I have seen of draining, I think Bryan Jackson's is the best done, and if others think so, he will be deservedly entitled to the premium.

This is a subject which I think of great importance to the people of this State. Every acre of waste land that can be and is so reclaimed, is just so many acres added to our territory; and besides, this, it adds to the beauty, health and wealth of the State.

Respectfully and truly yours,
J. JONES.

ELEGANT MANTEL PIECES.—Taking as we do a warm and heart-felt interest in the promotion of the Mechanic arts, and ever proud of witnessing the skill of our own unsurpassed workmen, we were induced to step in at the stone-cutting shop of *John W. Maxwell*, in North Calvert, near Franklin street, some days since when we were shown by that excellent artist a number of mantel pieces, combining almost every order, as *Gothic*, *Ionic*, *Corinthian*, *Doric* and *Composite*, fabricated out of *Italian*, *Grecian*, *Irish*, and *American* marble, at various prices, and all moderate, when the chasteness of the taste with which they were conceived and fashioned, the skill of the workmanship, and the exquisite nature of their finish are considered. Indeed, as we listened to the various prices named for them by Mr. M. we were struck with wonder, how he could afford to chisel into form so much beauty for sums so comparatively trifling in amount,—and as an act of justice to the consummate art and laudable industry of that unpretending mechanic, we mention his establishment in the hope that some of our readers who may have buildings to erect and occasion for the productions of his cunning and device will give him a call.

☞Accumulate materials for making manure, make them into compost, and secure your compost, and secure your compost against waste from either rain or sun, for of a truth manure is better to you than gold, silver, or precious stones.

From the Farmers' Library.

CISTERNS.

How Built—Their Cost, and Applicability to the Wants of the Country.

We the more earnestly desire to procure and disseminate all practical information on this subject, because we see so many people neglecting the means at hand everywhere for collecting an ample supply of pure water for all uses, which they might do from the roofs of their houses, by means of a simple cistern, easily built after the fashion described in the following obliging communication from Mr. Buck.—How many families in the country are scantily supplied with water for domestic uses, and that procured with great expense of labor. Moreover, no tongue can tell how much domestic animals sometimes suffer for want of this first necessary of life:

HARTFORD, Ct. April 1, 1847.

J. S. SKINNER—*Dear Sir:* Your favor asking information respecting the Cistern you saw building at my place last summer, was duly received.

Failing to obtain from the builder the definite information I could wish, I will tell you all I know about this kind of Cistern. Like everything else of Yankee invention, it is "patented;" the entry at the Patent-Office is, I understand, made by Obadiah Parker, of Syracuse, N. Y.

The cistern is built of cement, without brick or stone, say one-third cement, two-thirds coarse gravel mixed together like common mortar—the hole in the ground being large enough to admit of a wooden frame, made in pieces of two feet high by three feet long, the pieces being fastened to each other by hooks and staples; the frame is set off from the sides, say 2½ to 3 inches, according to the nature of the soil, commencing with one row of pieces; the composition (cement and gravel) is then turned in slowly, another set of pieces then broken on, adding composition as before. As the composition hardens, the frames are removed, and it is finished inside with a trowel like the wall of a house. The top is arched, leaving a hole at top, say 24 inches square, to admit a person for the purpose of cleaning it when necessary. The bottom is flat, and is made after the sides and top are finished.

For pipes for carrying the water in, and waste pipe, use a round stick, say 3 or 5 inches in circumference, and from the composition around the stick; withdrawing the stick as the pipe is formed.

The cover to the hole on the top of the Cistern is generally of wood, in which you insert either wooden pump or lead pipe, though a lead pipe can be easily inserted into any part of the Cistern by boring a hole through the cement after it is thoroughly hardened.

The cost here is, for one of 40 bbls.	$25
50	35
75	40
100	50

This includes digging and materials.

The one you saw here was, say, 8 feet in depth, 6 feet diameter, and will hold 75 bbls; it answers, in every respect, the purpose for which it is intended. It is covered with, say, 3 feet of dirt to protect it from frost, and loads of hay weighing a ton have passed over this winter without causing it any injury. For dwelling houses in the country about here, they have completely driven out of use the old-fashioned wooden cisterns. For convenience and additional protection against frost, they are generally built under the kitchen.

At the South where they are not troubled with frost, there cannot be an objection to them. The person who built mine said he thought of going to Louisiana for that purpose next Winter.

If in my power to obtain any farther information of this or any other matter in this neighborhood, please command the services of Yours, truly.

DANIEL BUCK, Jr.

USEFUL RECIPES.

To Preserve Wood.—5 lbs. of chloride of zinc to 25 gallons of water.

Portable Glue.—Best Glue ½ lb.; water sufficient to boil it in a double glue-pot, and strain, add ½ lb. of brown sugar, and boil pretty thick; then pour into moulds, when cold, cut into small pieces and dry them.

To Remove Glass from old Sashes.—American potash 3 parts, and 1 part unslacked lime; lay it on both sides with a stick, let it remain 24 hours; the putty will then be soft enough,—it will also take off tar and paint.

To Polish Furniture.—Melt together in a pipkin, ½ lb. of bees-wax, ¼ of an ounce of alkanet root, until the former be well coloured; then add linseed oil and spirits of turpentine, of each half a gill; strain through a piece of coarse muslin.

To Mend broken Glass Ornaments.—Dissolve 5 bits of gum mastich, each the size of a large pea, in as much spirits of wine as will liquify it, and in another vessel dissolve as much isinglass, previously softened in water, (though none of the water must be used,) in good French brandy or rum, as will make a two ounce phial of strong glue, adding two small bits of gum galbanum or ammoniacum, which must be rubbed or ground till they are dissolved, then mix the whole with a sufficient heat; keep the glue in a phial, closely stopped; when using, set the phial in hot water.

Amalgam for a Metallic Varnish.—Take of tin, bismuth, and mercury, equal proportions; melt, and when cold, mix with the white of an egg.

THE HYDROSTATIC VALVE.

This new contrivance is of great use to prevent noxious vapor rising from sewer gratings. It consists of a spherical recipient, open at the top and bottom, placed between the grating and the mouth of the drain; and a ball specifically lighter than water placed in the receipient. It is evident that the ball will constantly close the sewer, and therefore, the evaporation arising from it will be shut in, but when water comes into the recipient, the ball will float, and so the drain being open, the water discharges itself freely. The recipient as well as the ball, may be constructed of different and very common materials. For the first, cast iron, baked clay or cement would be very proper. The second may be made of sheet iron, copper, or wood, (covered with a good varnish repellant of water) or with Indian-rubber inflated. It is applicable with equal utility, both to the sewers of streets, and to domestic purposes, in the places where foul water is discharged.

LARGE CROPS OF CORN.—Mr. John Husfelt in Sassafras Neck in this county, raised last season *eleven hundred* bushels of corn on ten acres of ground. He thinks he can beat Capt. Barr. If the coming season be propitious, the captain intends to show some of these gentlemen where his crops "first started."—*Cecil Whig.*

WHITMAN'S WROUGHT IRON RAILWAY HORSE POWER & THRESHER.

The following letter from a well known farmer of the Old Dominion, in regard to the Rail-way Horse Power, we deem worthy an insertion in our journal; we understand the demand for the machine is increasing in Accomac.

RANENWOOD, Accomac, Va., *Aug. 4th*, 1847.

Mr. E. Whitman, Jr.—During my late harvest, I have fully tested the merits and capacity of your Two Horse Rail-way Power and Thresher. As a labor saving machine, performing its work in the most perfect manner, it is invaluable to the farmer. In every particular it has answered my most sanguine expectations—I would not be without it for four times its cost. Indeed, I consider it has already paid for itself; for, without its aid, I could not possibly have availed myself of the high price at which I disposed of my crop. During its operation, it was visited by several of the best and most intelligent farmers in the county, who were delighted with its work. With two small mules (entirely too light) and five men and a girl to attend the machine, I threshed four hundred bushels of oats in five hours and twenty minutes, with perfect ease, and without hurrying at all—that was the longest time I operated with it in any one day. I have threshed, cleaned, and housed my grain sooner than I have ever been able hertofore to stack it; and without any extra labor. Your Horse Power will be generally adopted in this county—indeed, I may say, that the best lever-power could not be sold here at one-fourth its cost.

I am much pleased with the Straw Cutter you sent,—though small, it answers every purpose.

I am yours, with great respect,

WM. H. B. CUSTIS.

FLORICULTURE.

Dahlia.—Those who desire to raise this splendid exotic, in luxuriance, and ensure its utmost beauty of bloom, *will set out the tubers this month as early as possible.* Dig the holes sufficiently large to allow several inches all round for the expansion of the lateral roots, and deep enough to allow the crown to be covered 2 inches. They should be manured with a compost comprised of 6 parts wood's-mould, or other rich mould, 1 part ashes, and 1 part rotten dung. As the tuber is set in its place, fix a stick sufficiently long and strong to support the branches when they shall have grown high enough to require being tied up. The compost must be thoroughly mixed, and, as put in, settled down with water, so as to bring the earth into immediate contact with the roots, until the tuber is covered; the last spadeful of earth not to be watered. Give to the top a slight basin like form, to catch the rain. *Should the weather be dry, the watering pot must be freely used.*—and great benefit will be derived by occasional waterings with soap-suds. While the flowers may be swelling, care must be observed not to let the plant suffer for moisture, as, if it should, the bloom will be despoiled of much of its magnificence.

As regards the soil, a *sandy loam* is best, but if the holes be dug deep and wide and the compost be placed beneath and on either side of the roots, this beauteous plant will thrive and do well in any soil, however stiff it may be. In the stiffest clay, with such treatment as we have described, we have ensured a bloom that excited the admiration of every one who beheld it.

When first introduced into England from Mexico, the gardeners there got into the erroneous idea, that the Dahlia delighted in *poor sands*, and, as a consequence, the plants as well as their blooms were stinted of that aliment so requisite to give them vigor and ensure a perfect development of flowers; but we are sure that no one possessing a philosophic mind, can look either upon the root, itself, or the rank foliage which it sends forth, without coming to the conclusion, that the Dahlia belongs to a family whose appetites are ravenous, and that they must be bounteously fed. Such was the conclusion to which we arrived at the time of our first purchase some thirteen years gone by, and the result proved the correctness of the opinion which we then formed; for, by repudiating the dandyism of professional florists, and seeking counsel of common sense, we succeeded to our heart's content—for despite the croakings and forebodings of those who are held in the leading-strings of authority, our Dahlias displayed a degree of healthfulness of stocks and leaves, and a brilliancy and variety of bloom in color and delicacy of tint, which at once challenged alike the delight of the amateur and the applause of the connoiseur.

MEMORANDUM FOR MAY.

Prepared for the American Farmer, by S. Feast, Florist.

Annual Flower Seeds—If not sown before, should now be attended to.

Mignonette, Candytuft, Lupins, &c. should be sown in small patches, where they are intended to remain.

Tuberoses, Gladioluses, and other flowering bulbs, should be planted this month.

Brompton and Twickenham Stocks, intended for flowering next winter, should now be sown.

Tender Annuals, sown in pots or boxes, in March or April, may now be transplanted to the borders.

Herbaceous Plants of many varieties, may be safely removed.

Roses in pots may now be planted out with success.

Dahlias.—May be planted from now until the middle of June.

Verbenas and other summer flowering plants, should be planted now.

Chrysanthemums, may now be propagated from cuttings or suckers.

Camellias should now be frequently syringed over their leaves.

Oranges and Lemons if flowering, require plenty of air and moderate supplies of water.

Greenhouse Plants, may be removed to the open air this month, remove the hardiest kinds first, such as *Rhododendrons, Azaleas, Laurus, &c.*

SOAKS FOR SEED CORN.

SMITHSBURG, Washington Co., Md. April 21st, 1848.

To the Editor of the American Farmer.

SIR:—There are many farmers in this vicinity, who think that *tar*, upon seed corn, is injurious to the growth of the corn. I myself am decidedly of that opinion. Tar is of the nature of turpentine, and we all know that that injures vegetation. In the pitch pine forests where tar is produced, little except pine trees will grow.

Some years ago I prepared my seed corn with tar in the usual way; but it came up very badly, and I had to replant a great deal of it. At the second planting I soaked the seed corn in *soap-suds* for twelve hours, then poured off the suds, and dried the corn by mixing plaster with it—the second planting out grew the first. About the same time one of my neighbors planted his corn after preparing it with tar in the same manner as I had done. Not having quite prepared seed corn enough, to finish the field, he planted the last few rows with dry corn as it came from the cob. These few rows far outgrew the rest of the field, and at husking time were found to have far the best ears. Since that time my neighbor always plants his corn dry, but I adhere to the plan mentioned above; namely, soaking it in soap suds about twelve hours, and then drying it with plaster. The object of this communication is to request my brother farmers to examine into the effects of the different modes of preparing seed corn, and let us know the result of their observations.

A SMALL FARMER.

BALTIMORE MARKET—April 25.

The stirring news of the revolutions of the governments of the Continent of Europe, has had but little effect on our market—produce being at about the same prices at which they ranged at our last issue—A general war is now threatened, which may, if it takes place, have some effect in favor of our staple productions—but at present, such is the unsettled state of things, (and the monetary affairs are as much convulsed as the political,) but little inducement is offered to make shipments from this country.

Flour, we quote Howard-st. at 5,75, and dull—city mills $6,12—Rye flour 3,87a4—*Corn Meal*, in bbls. $2,50 for Pa.—stocks of wheat and flour are limited—we quote for good to prime Red Wheat, 133a138, and wanted—white 140a162, the latter for parcels of superior, for family use—*Corn*, is in demand; sales at 43c. for white, and 46c. for yellow—*Oats*, sales at 33a36.—*Bacon*, sales of shoulders have been made at 4c. sides at 4¾a5c., and hams at 5a7c.—*Lard*, in bbls. at 6½c.—*Whiskey*, sales are limited at 23c. for bbls. and 22c. for hhds—*Cattle*, beef, 545 head offered on Tuesday at the scales, of which 290 were sold to city butchers, 90 remain over, and 165 driven to Philadelphia; prices ranged from $3a$4.25 per 100 lbs. on the hoof, equal to $6a8,25 net, and making an average of 3,62—*Hogs*, sales of live are made at $4,25a4,75—*Pork*, mess $12; No. 1, 9,50a10,50; prime $7,50—*Cloverseed*, 3,75a4—*Flaxseed*, 1,31a1,33—Hemp, dew rotted $140 per ton—*Hay*, Eastern pressed $16 per ton; country hay, from wagons, $16a18 per ton—*Molasses*, dull, N. O. prime, 26½; Cuba 18a22c. Porto Rico: 23a26c.—*Oil*, winter sperm, 120a125; fall 115a120; Linseed 64a66; lard oil in bbls. 70c.—*Plaster*, $3,62 per ton—*Rice*, 3,81 per 100 lbs.—*Sugar*, N. O. com. to good, 4a4,75; prime $5; very choice $5,25; P. Rico 4,30a4,70; Cuba 4,15a4,20—Dried Peaches, halves, $1,75 per bushel—*Tobacco*, continues inactive, both sellers and buyers feeling indisposed to operate until further news from Europe. The old crop of Maryland and common descriptions of the new are not wanted, but occasional lots of the better descriptions of the new crop are taken at prices somewhat under former rates. The arrival of the next steamer from England is therefore looked for with much interest. These remarks are equally applicable to Ohio Tobacco. We quote nominally inferior and common Maryland $2,50a$3; sound common $3a3,50; good $6, and fine $7a$12—Common Ohio $3a$3.50; good $4,50a6; fine red and wrappery $6.50a$9; fine yellow $9a11; and extra wrappery $10a$12.

METEOROLOGICAL TABLE,

From the 20th of March to the 21st of April.

Kept at Schellman Hall, near Sykesville, Carroll county.

Taken at 6 o'clock, a. m., 2 o'clock, noon, and at 6 o'clock.

	Wind.			Temperature			Remarks.
21	s	s	w	37	45	56	Clear
22	w	sw	s	37	57	47	Clear Fogs Rain 1-4 in.
23	n	n	n	37	43	40	Cloudy Shower ¼ in.
24	w	w	w	30	49	45	Clear
25	s	s	s	33	55	49	Fog Clear
26	w	s	s	39	70	65	Clear
27	w	sw	s	50	66	62	Clear
28	nw	ne	se	52	55	54	Rain 1-8in.
29	w	w	w	47	64	58	Clear
30	nw	nw	sw	36	66	58	do
31	e	s	s	44	73	70	do
1	nw	nw	w	63	55	50	Rain ¼ inch
2	nw	w	w	46	56	53	Clear
3	w	se	se	40	58	53	do
4	se	w	sw	40	58	63	Cloudy
5	s	s	s	56	66	58	Clear
6	s	w	w	45	60	55	Clear
7	sw	w	w	53	63	55	Clear
8	w	w	w	35	62	53	Clear
9	nw	s	s	28	68	61	Clear
10	w	s	s	43	73	68	Clear
11	w	w	w	54	73	68	Clear Shower
12	e	e	e	46	50	50	Cloudy Shower Rain ¼ in.
13	w	w	w	45	58	52	Fog Clear
14	w	sw	w	40	54	47	Clear
15	w	w	w	36	60	54	do
16	nw	w	w	51	66	60	do
17	nw	w	sw	43	67	62	do
18	s	s	s	48	68	60	Cloudy Clear Rain Hail
19	w	w	w	47	40	40	Cloudy Snow Clear
20	nw	w	w	28	54	51	Clear

OSAGE ORANGE SEED.—We have yet on hand a few quarts (each containing 7000 seeds) Osage Orange Seed; price $3,50 per quart. Those wishing to produce a permanent, beautiful and substantial hedge should plant without delay.

R. SINCLAIR, JR. & CO.

May 1 62 Light-street—Baltimore.

JERUSALEM ARTICHOKE ROOTS, $1,50 *per bushel*. BOWIE'S SEEDLING AND BOSTON EARLY ROUND POTATOES, 1,50 *per bushel*. FOR SALE by the subscribers. The Artichoke Roots (a species of Potato) are not subject to the Potato disease, and valuable for feeding stock. The product per acre is about 76 bushels. Bowie's Potato is the best to be had for general crop, and the E. Round for early crop.

R. SINCLAIR, JR. & CO.

May 1 62 Light-street—Baltimore.

FOR SALE—THE Minor and Horton PLOWS of every size, with all their extra Castings.—Also, Wiley and all other PLOWS and CASTINGS, all of the Northern manufacture and materials. We also keep one of the best hand Corn Shellers in this market, which we will warrant to all who purchase. We have a lot of large size 2 and 3 horse Plows of the Wiley and Minor & Horton, which we wish to get off and will sell them very Cheap, at W. GAWTHROP & SON'S,

mh 1 1848. No. 71 Bowly's wharf, Baltimore.

TO THE MECHANICS, MANUFACTURERS, ARTISTS AND OTHERS IN THE UNITED STATES.—The Board of Managers of the *Maryland Institute for the promotion of the Mechanic Arts*, recently established in the city of Baltimore, respectfully announce that they intend holding their first FAIR for the exhibition of improved Machinery, Agricultural Implements, &c. in the month of October next.

Further particulars will be given in future advertisements, and circulars will be forwarded to persons engaged in manufactures and the arts.

J. K. STAPLETON,
GEO. J. ROCHE,
EDWARD NEEDLES,
ROSS WINANS,
B. S. BENSON,
} Com. on Fairs.

ADAM DENMEAD, Chairman.
SAM'L. SANDS, Sec'y. Ap. 1

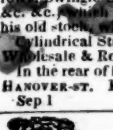
TO FARMERS AND PLANTERS.

A. D. CHILDS' PATENT HORSE-POWER.

PRICE $110—or without the wood work of the sweeps $100. The subscriber would invite his patrons and the public generally to call and examine this Horse Power for themselves, and also his Threshing Machines, as he has several on hand of supeior workmanship. He has also on hand a quantity of Ploughs of all sizes and various patterns and well made, with a great variety of other Implements, such as Wheat Fans, Harrows, Swingle-trees, Corn Shellers, Gorn and Cob Crushers, &c. &c. Which he will sell very low, as he wishes to close out his old stock, which he has been several years reducing.

Cylindrical Straw Cutters and Plough Castings on hand at Wholesale & Retail as heretofore. J. S. EASTMAN,

In the rear of his old Store, No. 180 PRATT STREET, near HANOVER-ST. Entrance by alley through the Front Store.
Sep 1



FLOWER SEEDS.

The subscriber has received a very great variety of FLOWER SEEDS, raised in this State the past season, which he will sell wholesale or retail on pleasing terms. They are put up in papers, at 6 1-4c. each. Also, a general assortment of GARDEN VEGETABLE SEEDS, as usual, embracing every variety, which he offers for sale at his Aricultural Emporium, No. 2 JARVIS BUILDING, North street, Baltimore, (Office of the AMERICAN FARMER.)
Feb. 1. SAMUEL SANDS.

THE SUBSCRIBER takes pleasure in returning thanks to the many gentlemen who have favoured him with their MILL-WORK; also to the farmers and planters for their liberal support in the Machine line, and would respectfullyy inform them, that his endeavors to please will continue unremitting. He is prepared at all times to build any of the following kinds of MILLS. Overshot, Pitch Back, Breast, Undershot, Reacting, Steam, Wind, Tide, Horse-power, or Tread Mills; and having the best of workmen employed at pattern and machine making, he can at all times furnish the best articles at the lowest prices, such as Horsepowers, Pettigrew Shellers, Murray's Shellers, 4 kinds hand and power Shellers, portable Mills adapted to any power, Corn and Cob grinders, Straw, Hay and Fodder Cutters, Carry log and Mill Screws; also manufactures Hoisting Machines, Hoisting Cranes, Pile Drivers Turning Lathes and Steam Engines; and any kind o Machine, Model or Mill-work built to order. Any kind of Castings and Smith-work at the lowest prices. I warrant all Mills planned and erected by me to operate well. JAS. MURRAY,
Millwright, York noar Light st. Baltimore.

Also for sale, Jas. Murray's patent separating Shellers, which shells and puts the corn in perfect order at the same time, for the mill or for shipping—Persons living near the city can bring with them one or two barrels of corn, and give the sheller a fair trial before purchasing.

He has also for sale, the following second hand Machinery: 2 pair 4 ft 6 in. French burr Millstones, with all the gearing; 1 pair 3 ft 6 in. French Burr Millstones, with all the gearing; and some Saw Mill work—the whole are good, and any or all of the above will be sold low. n1

HALIFAX, N. C., August 25th, '47.

Mr. JAS. MURRAY,—*Dear Sir:*—This is to certify that I have used your fans during the last spring and summer, and feel no hesitation in saying they are the best by far, I ever saw, I tanned with one fan, one thousand barrels of corn in one day—and in one day fanned one thousand bushels of wheat, as it come from the thresher. They will do as much as any two I ever had, in the same time. Yours, &c.
W. B. HATHAWAY.

FLOWER SEEDS.

SAMUEL FEAST, keeps constantly on hand, a numerous collection of Flower Seeds; comprising some of the choicest kinds, now in cultivation, which he will be pleased to furnish to Amateurs, at moderate rates, at his Exotic Nursery and Seed Store, N. E. corner of Charles and Saratoga Streets, Baltimore, Md. ap 1

GARDEN SEEDS.

Warranted Fresh and Genuine, for sale by
SAM'L FEAST, Exotic Nursery & Seedsman,
N E corner of Charles and Saratoga-streets,
Ap. 1 Baltimore, Md.

BONE-DUST AND POUDRETTE.

THE subscribers are prepared to furnish the above named articles of manure, at the shortest notice, at their manufactory on Harris' Creek, Canton, near the Eastern limits of the city. Orders may be left at S. SANDS, Publisher of the American Farmer, No. 2 Jarvis' Building, North-st., Balto.
mar 1. HOSKINS & BAYNES.

AGRICULTURAL IMPLEMENTS—LABOR SAVING MACHINERY.—*GEORGE PAGE*, Machinist & Manufacturer, Baltimore st. West of Schroeder st. Baltimore, is now prepared to supply Agriculturists and all others in want of Agricultural and Labor-saving MACHINERY, with any thing in his line. He can furnish Portable Saw Mills to go by steam, horse or water power; Lumber Wheels; Horse Powers of various sizes, ranging in price from $85 to $200, and each simple, strong and powerful. His *Horse Power & Thrashing Machine*, he is prepared to supply at the low price of $125 complete. Thrashing Machines without the horse power, according to size, at $30, 40, 65 and $75; improved Seed and Corn Planter, Portable Tobacco Press; Portable Grist Mills complete, $12.

PLOUGHS! PLOUGHS!!

The subscriber is manufacturing Ploughs of various patterns and of different sizes; also Wheat Fans, Cylindrical Straw Cutters, Corn and Tobacco Cultivators, CORN SHELLERS, &c. Also,

THRESHING MACHINES and HORSE POWERS—these latter are used by the following gentlemen, to whom reference is made, as to their superior value, viz. Messrs. T. Beard, Th. Beard, Dr. Watkins, J. T. Hodges, T. Welsh, *W.* Mackall, J. Igiehart, A. Sellman, R. Sellman, *W.* Hopkins, J. Kent, Geo. Wells, Geo. Gale, Dr. Fenwick, A. Franklin, J. C. Weems, of Anne Arundel county; G. *W.* Weems, J. T. Barber, R. B. Chew, *W.* Boswell, Y. Howes, of Calvert co. Md. ☞Agent of Evans Davis, Baltimore co. for sale of the Woodcock Plow.
Pennsylvania Grain Cradles. CHAS. H. DRURY,
Gillingham alley, entrance from Howard st. near Pratt,
mal and store, Hollingsworth st. corner Pratt.

The "Simon pure," and invincible WILEY PLOW still in the field—A. G. MOTT, at No. 38 ENSOR STREET, near the *Bel-Air Market*—Manufacturer and Vender of Implements of Husbandry, viz. *Plows, Harrows, Cultivators, Grain-Cradles, Wheat-Fans, Corn-Shellers, Straw-Cutters*, Endless chain *Horse Powers, Threshing Machines*, &c. &c.—through this medium, would apprize the agricultural community of the fact, that he is the only manufacturer in the "Monumental city" of the GENUINE WILEY PLOW (right and left hand) composed of the real "simon pure" and justly celebrated New York composition, chilled castings, the points of which, are warranted to stand the most rugged soil equal to steel, at a cost of about *two cents* per acre, for blacksmith's bill.—If you are for bargains, call, or send your orders, for he guarantees his

LIME—LIME—The subscriber is prepared to furnish from his depot at the City Block, Baltimore, ALUM STONE LIME of the purest description, deliverable at any point on the Chesapeake Bay or its tributaries, at such prices as cannot fail to please.

He is also prepared to furnish superior building Lime at 25c. per bushel, in hhds., or at $1 per bbl. E. J. COOPER,
ruly 1 City Block, Baltimore.

WM. R. STUART, COMMISSION MERCHANT, No. 14 Bowly's Wharf, respectfully solicits the patronage of the citizens of Maryland and elsewhere; and gives assurance that all business entrusted to his directions shall receive prompt attention. ap 1

FIELD AND GARDEN SEEDS.

A COMPLETE assortment of American Field and Garden Seeds, of all kinds, principally grown and put up expressly for us.

ALSO—English and French Grass and other Seeds, just received. Among these are the Perennial and Italian Ray Grass, Sweet Vernal and Oat Grass, fine mixed Lawn Grass, White Clover and Lucerne. Also, English Beans, Vetches, Ruta Baga Seed, &c. &c.

Agricultural and Horticultural Implements, a complete assortment.

The American Agriculturist, a monthly publication of 32 pages octavo, with numerous Illustrations, Edited by A. B. ALLEN.

New York Agricultural Warehouse and
Seed Store, 187 Water street, N. Y.
m1-2t. A. B. ALLEN & CO.

THE "MECHANICS' AND MANUFACTURERS' EXHIBITION.—This grand affair is to be opened on the 17th day of May next, at WASHINGTON HALL, in the city of Baltimore. The Managers respectfully invite Manufacturers of all descriptions of articles of skill and art, either useful, ornamental or novel, to send them for exhibition. All articles, the result of female ingenuity, taste or industry, will have a place in the exhibition. The Hall will be open on Thursday, 11th day of May, until Tuesday, 16th, inclusive, for the reception of articles for exhibition. The exhibition will continue for two weeks. Steam power will be provided for the operation of machinery. All articles will be admitted free of charge. Owners and agents furnished with season tickets free. By order. B. S. BENSON, Superintendent.
May 1

200 THRASHING MACHINES FOR SALE.—E. WHITMAN, Jr., Baltimore, will offer for sale this season one hundred of his Wrought Iron Rail-way Horse Power and Threshing Machines, and one hundred Sweep Horse Powers do. The great demand for those machines, will [illegible] bidders to be sent early to have machines at the time [illegible] may be wanted. E. Whitman, Jr. is the only man in this [illegible] State, who manufactures the Wrought Iron Rail-way Horse Power and the Thresher, with an Iron Cylinder complete in one piece; and is also the only man who makes the machines to Thrash and Clean at one operation. As Threshing Machines of all kinds and prices can be found at his warehouse, from $110 to $220, all who are in want of a machine will do well to give him a call. May 1

NOTICE TO FARMERS.—We have a supply of our Premium Wheat Fans, Ploughs, Corn Shellers, and Cultivators on hand; for description see catalogue, which may be had gratis by applying to E. WHITMAN, Jr.
May 1 Cor. of Light & Pratt-sts.

CORN PLANTERS—RIGHT AT LAST.—After all the humbugs and failures in Corn Planters, we now offer one for sale, which we believe to be perfect. See catalogue, page 2 of supplement. Price $20. E. WHITMAN, Jr.
Baltimore, May 1. Cor. of Light & Pratt-sts.

CULTIVATORS.—We have made an improvement in the Cultivator—the object of which is, to let the horse travel in the middle of the row of corn, &c. This is done in a very simple manner, by means of an adjustible draft rod which is moved so that the Cultivator may be run close to the rows, and the horse at the same time travel between them, and thus prevent what often occurs, the treading up of the corn, or [illegible] as to injure the roots. Price, expanding with cast teeth, $5.50; with wrought $6.50. E. WHITMAN, Jr.
May 1. Corner of Light and Pratt-sts.

HUSSEY'S REAPING MACHINES.—Farmers are reminded that harvest is fast approaching,—those who intend getting Reaping Machines should apply in time.
Baltimore, April 21, 1848. OBED HUSSEY.

FOR SALE.—Two fine thorough bred AYRSHIRE BULL CALVES, got by imported bull out of imported cows. One of these calves, now about 11 months old, will be delivered in Baltimore, before 1st or June next, for $70—the other about 4 months old for $50. A deduction of $5 from the price of each will be made, if the purchasers shall receive them at the farm of the proprietor, 21 miles from the city. Apply to S. SANDS, office of the American Farmer. may 1

NOTICE.

CLAIRMONT NURSERY,
Near Baltimore, Md.

We again take pleasure in notifying our various customers and the public, that the time has nearly arrived for transplanting Trees, &c., and consider our stock of fruit trees superior to what they have ever been before both in quality and in quantity, as we have had an opportuty of testing their correctness from our standard Trees which are extensively bearing.—We deem it unnecessary to enumerate the various kinds of fruit and ornamental Trees, Shrubbery, Roses, Green House plants, Flower roots, &c. &c., suffice it to say our Nursery and Seed Garden occupies about 100 acres of the Farm, and our determination is to give satisfaction if possible, both in price and quality—printed Catalogues, giving our prices, will be be sent gratis; where large quantities are wanted considerable discount will be made. Letters addressed to R. Sinclair, Jr. & Co., Light St., Baltimore, or the subscribers, Balto. Md. will meet with prompt attention.

Persons wishing to act as Agents will please let us hear from them. WM. CORSE,
Nov 1 Successor to Sinclair & Corse.

☞BOOK & JOB PRINTING neatly executed.

CORN AND COB CRUSHERS—CORN SHELLERS, STRAW CUTTERS, &c.

WE are manufacturing and offer for sale the following valuable agricultural machinery, viz.

Our Eagle Corn shellers, made with single and double plates, price,	$15 to 16
Virginia cylindrical corn sheller,	$30
Box and vertical corn shellers,	$10 to 16
Goldsborough horse power corn sheller,	$40
Smith's Columbiad do do	$55
Pettigrew's N. Carolina do do	$80

Cylindrical Straw Cutters, with and without patent corn stalk Lacerators attached—prices as follows, viz:

Inch.	9 in.	11 in.	12½ in.	14 in.
Lacerators,	0	$6	$8	$10
Price,	$25	$35	$45	$55

☞Cutting machines without Lacerators are sold at 25, 28, 30, 37 and $45 each. Farmers having our cylindrical straw cutters can have the Lacerators attached at the above rates, with a small additional price for time, &c. consumed in adding the attachment. This addition is valuable and should be adopted by every farmer who wishes to economise.

Corn and Cob Crushers, an excellent and durable machine, price $30. Also on hand as usual a large and general assortment of Thrashing machines, Plows, Fanning and Corn Mills, Drill machines, Tools, Garden and Field Seeds, &c.

j1 R. SINC[illegible] Light-st.

GARDEN AND [illegible] SEEDS. I received a fresh supply of seeds from England, with varieties entirely new, and having no old seeds on hands, persons desirous of obtaining a good article may rely on their quality, and at a moderate price—besides having a large collection of Hothouse, Greenhouse and hardy plants, Fruit and Ornamental Trees, Shrubbery, Bulbous roots, &c.

Cut flowers for parties, and boquets put up in best style to order. Application for Gardeners.

JONH FEAST, Florist and Seedsman,
mh4t *Corner of Lexington and Pine streets, Baltimore.*

LIME.

THE subscribers are prepared to furnish Building and Agriculture Lime at the depot on the Back Basin, corner of Allen & Lancaster streets, which they will warrant to give satisfaction, it being burnt from pure Alum Lime Stone, equal to any found in the United States. Orders may be left with William Robinson, No. 15 Hollingworth st. near Pratt.
m1. FELL & ROBINSON, City Block.

CONTENTS OF THE MAY NO.

Work on the Farm	337
Analyses of Indian Corn	339
R. S. W. on Vegetable Physiology,	340
J. Jones, on Sowing Wheat in July	344
Lime in planting trees	345
Ammoniacal Manures for Wheat	"
Montgomery Co. Agricultural Society's proceedings	"
Remedy for Canker worm	346
"Sea-Island," on Manure	"
Making in *S. C.*	"
A Montgomery Farmer, on Transmutation,	347
Do. on saving clover seed	360
Prof. Baer on cure for hydrophobia	348
"Medley," on book-farming, description of King's Cultivator, &c.	349
L. C. D. on apples without cores	350
To [illegible] mine weight of cattle	"
An In[illegible]ger, on preparation of corn ground, gas lime and ashes	351
Old Man of the Mountain on saving Clover Seed,	"
Draining Tiles	"
Potatoes on Orizaba mountain,	"
Editorial Notices	353
Rye-grass Culture—manure for grape vines—subsoiling, effect of, on corn	353
Culture and Value of the Carrot	354
Coke as a manure	354
Decision relative to manure	"
Manure for Fruit Trees	355
Curing Clover Hay	"
Mr. Bements' hotel at Albany	"
A cheap Paint, by Col. Boyle	"
Facts relative to Manure	"
Shipment of Breadstuffs	356
Mimosa Seed, by Mrs. Thomas	"
A Table for measuring	"
Sea-weed, pine shatters, &c. for manure	357
Draining of stiff clays	"
Orator for *P.* Geo's Soc.	"
Work in Garden for May	358
Shell Mould, value of	359
R. C. Holmes on Potato Culture	360
D. G. W. on disease of the horse, castrating, and ashes	"
Wm. S. Barr, on soot and guano	"
R. T. Earle, on planting potatoes	"
John Jones on Draining	362
Elegant Mantel Pieces	363
Construction of Cisterns	364
Useful Recipes	"
The Hydrostatic Valve	364
Mr. Husfelt's corn crop	"
W. H. B. Custis' account of the Rail-way Horse Power	365
Culture of the Dahlia	"
Work among the Flowers	"
On Preparing Seed Corn	366
Meteorological Table, Markets, &c.	366